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ABSTRACT

The document presents the final report of a study to (1) identify job types in adult basic education in Texas and (2) provide a job-related basis for making management decisions at the State level, affecting local programs in adult basic education. A job inventory instrument was developed, containing 23 duties and 539 tasks, and was administered to the approximately 2,711 adult educators in Texas, with a 60% return rate. The Comprehensive Occupational Data Analysis Programs (CODAP) processed and analyzed the occupational data. Three significant job types within the adult basic education career field were identified: (1) mathematics and general education degree (GED) preparation; (2) communication skills, basic education, and ESL; (3) mathematics, communication skills, GED preparation, and basic education. A discussion of the problem, review of related literature, examination of the research procedures, presentation of data (through 22 tables), and summary, conclusions, and recommendations are presented. Appended material includes the job inventory utilized in the study (40 pages) and description of CODAP data summaries. It is recommended that the Texas Education Agency, which administers all adult education programs in the State, develop a personnel and position requirement program. (LH)

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THE ANALYSIS AND DEFINITION OF JOB TYPES WITHIN THE ADULT BASIC EDUCATION CAREER FIELD IN TEXAS

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ABSTRACT

The Analysis and Definition of Job Types Within the Adult Basic Education Career Field in Texas

This study was designed to identify job types functioning in the adult basic education career field in Texas. A job inventory was constructed in accordance with recommended procedures and then utilized to collect occupational data from incumbent workers in local adult basic education programs. The occupational data were input to the CODAP programs for data processing and analysis. CODAP is an acronym for Comprehensive Occupational Data Analysis Programs and consists of twenty-four computer programs specially designed to analyze occupational and personnel data. The CODAP data processing method enabled the occupational researcher to define the functional organization of job types in the adult basic education career field. Specific criteria were employed to identify significant job types within the occupational field. Three groups of workers reported in the clustering process met the requirements for significant job types. Each of the three groups was composed of teachers who perform a unique, distinct and uniform subset of tasks

to meet the teaching requirements of local programs. One group taught mathematics and reported their job specialty as mathematics and GED preparation. Another group taught communication skills and reported their job specialty as basic education and ESL. The third group taught mathematics and communication skills and reported GED preparation and basic education as their job specialties.

The resultant task data base established by this study was sufficiently accurate to define position requirements for teachers working in the three specialty areas. Critical training requirements may then be derived from the position requirements.

In regards to the other clusters or groups reported via the clustering process, no significant job types appeared. It may be concluded that the work performed by personnel in each of these groups varied from one worker to another without a uniform subset of tasks common to each position to reference the utilization of workers in that position.

It was recommended that the Texas Education Agency define the work requirements for the positions in the adult basic education career field, so that both local and state administrators can gain a clear understanding of what makes up a job, what a worker is responsible for doing and then determine what the worker needs (via training and personal experience) to be able to perform the job satisfactorily.

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THE PROBLEM

Introduction

The goal of this study was to identify job types in the adult basic education career field by utilizing a special occupational analysis system. The system is called CODAP, which is an acronym for "Comprehensive Occupational Data Analysis Programs," and was developed by the Occupational Research Division of the U.S. Air Force Human Resources Laboratory (AFHRL).

The job types defined by this system revealed how work was organized according to homogeneity of time spent on tasks performed by workers in an occupational field (1:1-8). A powerful clustering routine "clustered" together those workers who were performing similar work functions. This clustering process was visually illustrated by a tree-like diagram which represented in broad form how the work force was organized into functional groupings. The objective was to identify those clusters which represented significant job types for the career field. The data base generated by this study can also be utilized to define position requirements and training requirements.

Background of the Problem

The adult basic education program in Texas is administered by the Texas Education Agency's Division of Adult and Continuing

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The journal of Adult Education was used as a pattern for format and style for the dissertation.

Education. This Division is responsible for planning and coordinating the delivery of adult basic education programs in all areas of the State. The actual delivery of educational programs is under the direction of local public education agencies. The local agencies are organized into cooperative groupings (co-ops) of public school districts and colleges and rely on the resources of both institutions to fulfill the board range of adult educational needs. A co-op director (employed by a local institution) is the regional administrator for a co-op group with over fifty such cooperating groups presently organized in the State (24, 16). The co-op directors are responsible for employing and directing various staff personnel such as learning center directors, program coordinators, and supervisors. These personnel direct and supervise the work activities of counselors, head teachers, teachers and teacher aides across the State.

Due to the large number of people employed in this occupational field and the diverse nature of the many adult basic education programs offered at the local level, it is difficult for management at the State level to determine the nature of the work assigned to adult educators.

Statement of the Problem

The current state of job definition for career fields in our work society is growing increasingly complex. Job descriptions are often inaccurate, and, in most instances, very incomplete. Federal

guidelines (from the Equal Employment Opportunity Commission), coupled with the operational demands of local programs, demand more extensive, precise and relevant job descriptions (9).

There were over 2,500 adult basic educators working in Texas in 1974 according to the personnel records of the Adult and Continuing Education Division of the Texas Education Agency. Their jobs encompassed performing clerical functions, teaching students, counseling students, supervising teachers, and managing and administering to program needs. Each job was established by a local manager who assigned work to personnel in any way he desired in order to accomplish the objectives of his program as he perceived them (16). It was essential that staff development planners and administrators at the State level understand how incumbent adult basic educators in Texas were organized to perform the work functions assigned to them. This required that each manager have the opportunity to communicate the nature of the work he established to appropriate personnel at the State level. At present, the only means by which the manager can communicate this information is by ambiguous job titles and brief job descriptions which are susceptible to multiple interpretations. Present job descriptions make little or no distinction between specialties and sub-specialties in the teaching areas (25). Also, clearer differentiation regarding assigned work functions should exist between supervisory, managerial, and administrative positions in the adult basic education career field.

Research Questions

This study attempted to answer the following research questions:

> How are personnel, employed in the adult basic education field, organized in performing similar sets of work functions, and what are the significant job types (each job type represents a group of workers performing a unique set of similar work functions) operating in the field?

The investigation, to answer these research questions, required the development of a comprehensive job survey instrument called a job inventory. A job inventory enabled a worker to report the tasks and duties he performed on the job and provided background information relative to the worker's training, work experience and personal data. This study investigated the work performed by personnel employed in the adult basic education career field in Texas. One thousand one hundred forty-six adult educators from a population of two thousand seven hundred eleven returned job inventories and supplied data to the CODAP system for data processing. A powerful clustering routine grouped workers according to the similarity of the time spent on common work tasks. The clusters or groups of workers were evaluated by certain criteria to identify the clusters which qualified as significant job types in this career field.

It was hoped that the resultant occupational-personnel data base would enable future job analysts to develop position requirements and training requirements for line and staff positions in adult basic education.

Operational Definitions

The following operational definitions were taken from the literature or developed for this study.

Duty - One of the distinct major activities involved in the work performed by the incumbent of a position (15:4).

Task - A unit of work activity which forms a consistent and significant part of a duty (18:2).

Position - A grouping of duties and tasks which comprises the principal assignment of one person (18:2).

Job - The duties and tasks performed by one person (18:2).

Specialty - A grouping of positions which require common qualifications (18:1).

Job Description - A summary of the duties and tasks performed by an individual or a group of individuals.

Career Field - A group of related specialties involving basically similar knowledges and skills (18:2).

Cluster or Group - A result of the hierarchical grouping of similar jobs reported via a job inventory survey.

Relative Time - The percentage of total time an incumbent performs on each task in an inventory, computed by converting a "scale" into a distribution over the individual's task performed. The sum of all relative time is 100 percent (7:107).

Job Type - A cluster or group of workers whose job characteristics and personnel data meet specified criteria to represent a significant functional organization of work.

REVIEW OF LITERATURE

This study utilized job centered occupational research methods to investigate the work performed by adult basic education personnel in Texas. Dunnette reported that the most widely used job-centered method was first applied to a few factory jobs just before World War I. "The general aim is to describe the nature and scope of jobs as currently constituted and apart from the persons performing them" (8:75). Job definitions and descriptions were developed after observing and interviewing job incumbents. This method produced job descriptions which were loosely written, subject to many differences in interpretation and often poorly standardized. Dunnette further stated that the most promising of the job-centered methods were those that attempted to organize work into more fundamental job units or groupings.

In relation to job-centered methods of study, the military has long been committed to obtaining information about jobs as they are actually performed in the field (17). The Air Force began basic investigations into identifying the most suitable means for collecting job information, and in 1952 Rupe investigated five methods of job analysis to meet Air Force requirements. These methods were: the individual interview, the observation interview, the group review, the technical conference of job experts, and the questionnaire survey by mail (20).

Another method of job analysis (behavior centered), the Critical Incident Technique, was proposed by Flanagan (10) who

maintained that the determination of critical incidents should be the principal objective of the job analysis procedure. This method was tried but later abandoned by the Army (17). In 1953, the Air Force attempted to determine the basic training requirements of tactical instructors in the Air Force by the Critical Incident Technique (23).

Finally in 1956, Rupe (21) pointed out serious deficiencies in all methods of job analysis for use under operational conditions in the Air Force, and concluded a check-list survey method be considered. The Air Force noted that among various drawbacks, such as expense, need for professional job analysis, time consumption, and inadequacy of samples, the most glaring deficiency in all methods was that data arrived in nonquantifiable form and were not amenable to statistical analysis (17:43).

In 1961 the Air Force Occupational Analysis Manual was revised to incorporate the job inventory approach for collecting occupational data. The revised approach facilitated quantitative analysis of data and the organization of information into a form useful to a maximum number of using agencies (17).

The collection of large amounts of job information required special data processing and computational techniques. In the early 1960's the Air Force began designing and developing a system of computer programs to process and report occupational-personnel data. The result of this endeavor was the CODAP system for processing job inventory information; whereby, months of calculations by conventional methods may be compressed into minutes and reported immediately (19).

The Air Force chose the job inventory as the only feasible approach for collecting task information from large numbers of people. There were several reasons for this decision (5:2). First, the technique was economical. Data could be collected from thousands of people for less than it would cost to collect data on a few people using professional job analysis. Second, the information obtained using job inventories was quantifiable. That is, the actual number of people performing any particular task could be counted and their characteristics described. Note that data collected by traditional job analysis were not quantifiable. No two analysts would describe a job in exactly the same terms. Third, the fact that information collected with job inventories was quantifiable also meant that it could be stored, manipulated, analyzed and reported by computer. Finally, the fact that information was quantifiable also meant it could be validated and checked for stability using conventional statistical techniques.

In 1967, the Air Force produced a "Procedural Guide for Conducting Occupational Surveys in the United States Air Force." The guide outlined procedures for constructing job inventories, selecting and locating occupational survey samples, administering job inventories, encoding data for input to the CODAP system, and computer analysis of job inventory data (18).

In 1973, Melching and Borcher, at Ohio State University produced a document entitled "Procedures for Constructing and Using Task Inventories." This brief document described the

procedures for constructing task inventories and presented methods for making manual calculations on task information (15). The recommended procedures in this document closely paralleled those adopted by the Air Force. "Job inventory" and "task inventory" are one and the same type of job survey instrument.

The use of job inventories to sample work content relies on the collection of data to measure primary aspects of task performance. These measures may be the relative frequency of task performance or a relative time spent estimate per task supplied by the incumbent worker.

In 1961, Thorndike (26:15) recommended the collection of task data representing "the proportion of his time which a worker devotes to an activity." Brumback (3:604-610), in 1971, recommended that job analysts begin collecting both job and manpower data using relative time spent estimates on performed tasks.

In 1973, Christal recommended using a "Relative Time Spent" scale as the primary rating factor, and conversion of ratings into percent time estimates:

> . . . there are certain statistical characteristics which makes this approach extremely useful. It has a clearly defined range with a base value of "0". For the individual case, the values indicate the percentage of his work time spent on each task, and the sum of these values across all tasks in the inventory is 100 percent. In a like manner, the average values for any group of workers indicate the percentage of group time spent on each task, with the sum of these values also equalling 100 percent. Percent time values provide a convenient method for computing the overlap of two individual jobs with each other, of an individual job with a group job description. Results

> from numerous studies have indicated that matrices reflecting overlapping time among individual job descriptions, when analyzed by the CODAP grouping program, can yield a precise definition of the types of jobs existing in an occupational area. Finally, having available the percentage of time spent on tasks makes it possible to compute the time spent by individuals or groups on particular types of work. For example, a manager may wish to know how much time is being spent by a group of mechanics on preventive maintenance. This can be very quickly computed by the CODAP system. It should be noted that none of the above characteristics apply to a scale such as "frequency of performance." How could one possibly summarize the level of activity across a series of tasks in terms of frequency, when some of the tasks are performed frequently, while other tasks within the subset are performed infrequently. I strongly recommend use of the relative time spent scale as the primary rating factor in occupational surveys, and that the obtained values be transformed into percent time spent estimates. (6:8)

In addition, the analysis of job inventory data to identify job types via the CODAP system required special description. A document by Archer (1) demonstrated how this analysis was accomplished in detail using miniature examples. The author reviewed the automated job clustering process and provided simulated computer printouts for various reports.

In regard to the published results of the application of Job Inventory-CODAP methods, the Air Force does not produce technical reports for publication on the internal studies made on their career fields (6:1). The chief of the Occupational Research Division has published a listing of selected uses of an occupational-personnel data bank which is input to the CODAP data processing system (5:21).

The results of one application of the Job Inventory-CODAP method in the civilian sector are available in a report entitled "Analysis

and Definition of Critical Training Requirements for Municipal Police Patrolmen" (11). The study utilized six job-task factors in a multiple regression routine to evaluate the requirements of a recommended basic training program for patrolmen.

The job inventory method for collecting task information has been investigated for operational use by job analysts. In a study conducted for the New York City Department of Personnel (4), the job inventory method was found suitable for operational use in sampling the work content of jobs. In this instance, jobs were not analyzed to define job types since the CODAP programs were not available to the researchers conducting the study.

A job centered occupational study was conducted on "WIN" (Work Incentive) programs in 1971 (12). A job inventory containing 81 tasks was developed to describe the work of WIN personnel. The job inventory collected relative time spent estimates on tasks performed in the inventory, and the study attempted to provide a detailed systematic look at WIN team member functioning in relation to WIN team concept. There was no attempt to identify functional job types in this occupational field since the researchers did not have access to the CODAP system.

Job centered occupational research methods have been undergoing continuous research, development and application since the early 1900's. The many recent achievements in developing procedures for identifying and analyzing work activities in terms of job oriented variables are the results of research conducted by the military

services. This activity has been especially notable with the Air Force, which began utilizing high speed computers in the early 1960's to process job-task data with computer programs specially designed for that purpose (19). Not until the early 1970's did the computer analytical services of CODAP become available to occupational researchers in the civilian sector (7). Such availability affords this researcher and others, the opportunity to utilize these methods and techniques to conduct occupational research in large occupational fields as adult basic education.

RESEARCH PROCEDURES

Data Development Procedures

This study had the objective to identify the job types functioning in the adult basic education career field and was accomplished in three steps. The first step involved the development of a comprehensive job survey instrument known as a job inventory. A job inventory contains a comprehensive listing of tasks and work functions performed by all personnel in a specific occupational field. Consequently, any incumbent worker may use this instrument to perfectly describe the tasks and work functions performed on his or her job.

The second step required completion of the job inventory by incumbent workers in the field. The third step required special processing of data to define the job types functioning in this occupational field.

Recommended procedures (2, 13, 14, 15) were followed in developing the "Job Inventory for Personnel Employed in the Adult Basic Education Career Field." (See Appendix for this Inventory). In this respect over 200 articles in the ERIC System plus numerous texts and program operating guides were reviewed to identify the work activities of adult basic educators. From this comprehensive review of the literature, an initial listing of the duties and tasks was defined as performed in this occupational field. This

initial listing which became a job inventory contained 18 duty fields and the task statements at this stage were too general to be used in an operational setting. The task statements and the organization of duty fields were redefined to reflect the functional content of jobs in the adult basic education career field. This was accomplished through approximately 65 interviews with incumbent workers in all areas of the State. As a result of the field interviews, a second draft of the task listings was prepared and mailed to fifteen adult basic educators around the State for review. This draft contained twenty-four duty fields and an expanded background information section. These fifteen adult basic educators were selected by their peers (in a special survey) as leaders in the field whose judgement and counsel would be sought by peer group members. Returned job inventories contained additional task statements, suggestions for rewording of tasks, and identification of duplicate task statements. As a result of these reviews, a third and final listing of duty fields and task statements evolved (see Appendix).

The task section of the job inventory contained twenty-three duties and 539 tasks. A task is a unit of work which forms a significant part of a duty, and a duty is a category for grouping related tasks. The duty and task listing described the work performed by all personnel employed in adult basic education in Texas. The job inventory contained a background information section to

collect data relating to worker characteristics, worker attitudes and work environment. The background information section for this job inventory was designed after reviewing the types of background data collected in previous inventories, interviewing administrators at the State and local level and professional staff working in Adult Education at Texas A&M University to identify their information needs.

Population

Each year every adult basic educator, working in Texas, completes a U.S. Office of Education "Region VI Staff Information Sheet" and forwards it to the Adult and Continuing Education Division, Texas Education Agency. These sheets were used to compile a directory of adult basic education personnel in Texas, which defined the population of adult basic educators in the State and supplied the mailing list for administering the job inventory. The decision was made to administer the job inventory to all adult basic educators in the State, since there were insufficient data on the staff information sheet to define a stratified sample. Personnel records available in the Adult and Continuing Education Division revealed that approximately 2,711 persons worked in Adult Basic Education in Texas in 1974.

Field Administration Procedures

Every adult basic educator in Texas received a series of letters early in the study. These letters alerted them to the project,

explained the nature of the work and described the importance of their participation. The job inventories were mailed to the incumbent workers' home addresses along with a postage paid return addressed business envelope. Accompanying each job inventory was a card the respondents could use to notify the author if they were no longer employed in adult basic education. Each worker reviewed the task listing and checked those tasks performed on his or her present job. Next, the worker applied a relative time spent factor to each task performed. This was a nine-point scale of relative time spent (see page 71). The worker compared the total time he or she spent on a task with the time spent on other tasks. Therefore, an incumbent worker used a job inventory to describe the unique set of tasks performed on a job and revealed how work time was distributed across the tasks in the job inventory. A series of follow-up letters and cards were forwarded to those workers who were late in returning the job inventories. These correspondences included a letter with a notice to be attached to the worker's pay check and two postcard size notices mailed at later dates requesting completion and return of the job inventories.

Each item in the job inventory was inspected upon return and checks were made to insure the respondent understood and followed the prescribed directions for completing the job survey instrument. These job inventories in which the respondents failed to time-rate any tasks which were checked as performed were rejected for input into the data processing phase. All background information on the

first page of the job inventory was considered essential to the study. Accepted data were keypunched onto standard IBM cards and verified. A special computer program (CODEDIT) edited keypunched data. The edit program made range checks, format checks, card sequence checks and a number of other checking and editing operations to insure valid data input to CODAP.

Data Processing for Analysis

The following procedures are described in detail in Archer's (1) document entitled "Computation of Group Job Descriptions from Occupational Survey Data." In this document job types were identified and described by means of an automated job clustering program that grouped incumbents according to the similarity of time spent on tasks. It is appropriate to remember at this point that in filling out the inventory, each incumbent worker checked the tasks which he performed as part of his regular job. He then rated the checked tasks on a nine point relative time-spent scale.

To permit comparisons across incumbents on specific tasks, the relative time-spent ratings were converted to percentage values. These values were regarded as estimates of the percentage of work time spent by each incumbent on each task. It was assumed that the total of an incumbent's raw ratings represented 100 percent of his work time; and each raw rating was expressed as a percentage of that total.

The clustering program began with the task level job descriptions of n (total number) individual incumbent workers and created a matrix showing the overlap of each individual with every other individual in the study in terms of percent time spent on tasks. In the first stage of the program, the computer located the two most similar of the (n) job descriptions and grouped them into a single cluster. The overlap of two individuals on any one task was defined as the smaller of the two "percent spent" values on the task, and the total overlap between the two individuals was the sum of their task overlap values. The total number of groups was thus reduced from (n) to (n-1). In the next stage of the program, the computer located and clustered the two most similar of the (n-1) groups. This could have been done either by adding an individual to the existing group or by combining two individuals to form a new group. The total number of groups was then reduced to (n-2). In successive stages the computer continued to combine individuals, to add individuals to groups, and to merge existing groups, in order of the similarity of their jobs. The process was repeated until all incumbents were merged into a single group.

A record was generated during the grouping process to describe the membership and homogeneity of all groups formed. The investigator used these data to identify possible job types. Composite job descriptions were generated for the identified groups by computing the average percentages of time spent on duties and tasks by the members of each group. The program "JOBDEC" performed three computations.

KPath Sequence Printout. A record called the KPath Sequence Printout was generated during the program to show the background information data for all surveyed incumbents. (KPath is a Fortran word describing a computer routine). Each line of the printout gave the background data for one incumbent. Each incumbent was identified by a unique KPath sequence number in the left-hand column, headed "KPath Seq." These numbers were assigned by the computer in such a way that the group members combined at any stage were listed together, and could be found within a certain KPath sequence range.

Group members report. Another program produced an information report that identified the two groups combining at each stage of the hierarchical grouping process. The information included the stage number (stage at which the group formed during the clustering process), the number of members in the combined group, the number of members in each of the combining groups, range of KPath sequence numbers for the combining groups, and the average percentage of overlap within the combined group.

Diagram of hierarchical grouping actions. The data from the group members program were used to generate a tree-like diagram that visually displayed the order in which groups merged during the hierarchical grouping process. Each group was represented by a rectangular block of data containing the same information found in the group members report. Rows and columns of asterisks showed the branches leading from a group to its subgroups.

Summary of background data. This program computed and reported frequency distribution within specified intervals, male total frequency counts, and calculated means and standard deviations on selected background and computed variables for any group of individuals.

Procedure for analysis and evaluation of data. The main problem of the job analyst (researcher) was to decide which of the main groups shown in the diagram of hierarchical grouping actions represented significant job types. The diagram illustrated the order in which groups merged during the clustering process. The main groups were located at points where two or more sub-groups combined, or, where isolated groups formed and merged with the total group in the latter stages of the clustering process. The clusters were distributed across the diagram according to the sequence of KPath numbers assigned to each case (worker) in the study. The sco[illegible] of the clustering process was fully revealed and all potential job types were described. It was once thought possible to set an absolute statistical decision rule on the minimum acceptable percent overlap on time spent within members of a group and to selec[illegible] groups accordingly. Archer reported that "such an approach has been discussed by Thorndike (1953) and Findikyan and Sells (1964) and has been applied by Silverman and Carr (1965)" (1:24). He further stated that the difficulty in such an approach was that any homogeneity measure was influenced by semantic characteristics of task statements, such as clarity and specificity, which were not equal

for all tasks or all inventories. It, therefore, seemed preferable to use the within overlap values only as tentative indicators of significant job types, and to consider additional information, such as background characteristics of group members, before making final decisions.

Since no explicit decision point or decision rule could have been defined that would permit a distinct identification of significant job types based solely on overlap values, a general rule was defined. This required using various background data which would assist in guiding the analysis of data and would provide "bench mark" reference points for determining significant job types in this study and assessing future change occurring to job types via replications of this study. The data used in this general rule are as follows:

1) A cluster had to contain at least twenty (20) members in order to be of significant size to warrant present and future attention.
2) The work performed by members of a cluster had to have a minimum average within overlap value of 40 percent to insure that time spent on tasks was approaching homogeneity.
3) Within a cluster, at least 75 percent of the members had to have job titles from one of the four categories in Table 1 to insure that group membership approached homogeneity on job titles. This was restricted to the top five job titles reported per cluster.

Table 1

Line and Staff Positions of Adult Basic Educators in Texas as Used in This Study

Staff	Staff Support	Line Support	Line
Co-op Director	Supervisor	Counselor	Head Teacher
Assistant Co-op Director	Office Aide	Teacher's Aide	
Local Director	Secretary	Teacher-Clerical Aide	Teacher
Director Learning Center			
Program Coordinator			

PRESENTATION OF DATA

Introduction

Personnel records available in the Adult and Continuing Education Division revealed approximately 2,711 persons worked in adult basic education in Texas in 1974. Each of these individuals received a job inventory. Three hundred thirty-five replied via a return addressed card that they were no longer employed in Adult Education. It was estimated that turnover in this occupational field was much higher than 12 percent recorded in these figures. Managers in the field have estimated the turnover exceeds 25 percent and in many cases may have approached 40 percent (22). The Division reported that the 2,711 figure was not completely accurate for it included workers who may have been employed for only a few months at the beginning of the year (16). The job inventories were mailed in November, and project staff estimated the approximate accuracy of our mailing list to be 1,897 persons. This figure accounted for a 30 percent turnover from the 1974 to the 1975 school year. One thousand one hundred ninety-eight job inventories were returned of which 1,111 were deemed useable. This resulted in an approximate inventory return ratio of 60 percent.

The background information section of the job inventory contained numerous questions to be answered by a worker about his job and himself. Three of these questions will be summarized in this

section to provide the reader with information about the distribution of job titles among adult educators statewide, a similar distribution of job specialties within the profession, plus the percent of personnel instructing at the seven levels, and the average number of students taught per level.

The background information section of the job inventory contained a listing of fifteen job titles used by adult basic educators in local programs. Each respondent checked the job titles which most accurately described his or her adult education job title. Table 2 represents the distribution of job titles across personnel in this study.

Table 2

The Number and Percent of Total Adult Basic Educators Responding with Their Job Titles

Job Title	No.	%	Job Title	No.	%
Co-op Director Assistant	27	2	Counselor's Aide	0	0
Co-op Director	9	0	Head Teacher	122	11
Local Director	38	3	Teacher	650	58
Director of Learning Center	13	1	Teacher's Aide	112	10
Program Coordinator	12	1	Office Aide	4	0
Supervisor	30	3	Home-bound Teacher	0	0
Counselor	34	3	Teacher-Clerical Aide	11	0
			Secretary	13	1
			None of the above	36	3

The background information section of the job inventory also contained a listing of 21 specialty areas in adult basic education. Each respondent checked the specialty area which most accurately described his or her job specialty in adult education. Table 3 represents the distribution of specialty areas across personnel in this study.

Table 3

The Number and Percent of Total Adult Basic Educators Responding with Their Job Specialties

Job Specialty	No.	%	Job Specialty	No.	%
Reading Specialist	16	1	Teacher Trainer	9	1
ESL	106	10	Educational Media	4	0
Consumer Education	1	0	Culture Awareness	6	0
Family Life Education	3	0	GED Preparation	283	26
Health Education	2	0	Mathematics	71	7
Career Education	5	0	Citizenship	10	1
Curriculum	16	2	Science	13	1
Counseling	37	3	Commercial Skills	18	2
Recruiting	3	0	Basic Education	273	26
Administrative	93	9	Staff Superintendent	25	2
Community Education	4	0	None of the above	67	6

In addition, each adult educator was asked to indicate the approximate number of students taught at each of seven levels of work. Table 4 reveals the percent of personnel working with students at each level and the average number of students taught per level.

Table 4

Percent of Personnel Instructing at Seven Levels and Average Number of Students Taught per Level

Level	Percent of Total Instructing	Average No. of Students Taught
ESL	18	20
Level I	38	14
Level II	40	15
Level III	54	25
Job Training	5	24
Citizenship	6	14
Other	6	28

These three types of data and additional data were utilized in the next section to evaluate the eighteen clusters of workers in order to identify significant job types.

Findings

This section will report the findings relative to eighteen clusters or groupings of incumbent workers in adult basic education. These eighteen groupings represented the end result of the hierarchical clustering process described in the section on research methodology. Each cluster in this study was described using seven primary sources of information. These sources were:

1) the total number in the group,
2) the within overlap value which represented the homogeneity of time spent on common tasks within members of the cluster,
3) the distribution of average percent time spent across duty fields where the cumulative sum approximated 75 percent,
4) the distribution of the top five job titles given for each group and percent of members who selected each title,
5) a distribution of the top five job specialties as chosen by workers in the group,
6) the percent of members instructing in seven instructional areas (ESL, Level I, II, III, Job Training, Citizenship and Other). The instructional area

referred to as "Other" included such areas as driver education, high school credits, income tax, first aid, etc.,

7) the average number of students taught per level was also reported for each cluster in this section.

This information is arrayed in tabular form for each of eighteen clusters (see Tables 5 to 22). Under the data for each cluster is an interpretative summary of the findings.

Accompanying this document are three volumes of data summaries produced by the CODAP system. The description of the data in the reports is in Appendix B. Appendix B is located under the cover of Volume I. The reader should complete this report before examining these data summaries.

Evaluation

The clusters described in Tables 5 to 22 revealed the functional organization of jobs and workers in the adult basic education career field in Texas. The first three clusters depicted groups of workers performing jobs which were clearly defined, and these groups were described as representing significant job types; that is, the tasks performed by members of a cluster should have had a minimum average within overlap of 40 percent, 75 percent of the members of a group should have represented primarily administrative, staff support, teaching support or teaching personnel, and the required number of members (20 members) in a significant job type should have been present. These were the criteria for a significant job type as outlined on page 23.

The remaining fifteen clusters represented groups of workers whose jobs were not clearly defined, i.e., task performance was heterogeneous, group membership was distributed across the four categories

There was no cluster which could qualify as a line support group. Cluster No. 67 contained 67 percent counselors yet the within overlap value was less than the minimum and group size was only 15. It may be of interest to note in passing, that these incumbents with the job title of Counselor were distributed across many of the clusters in this study and also, not one cluster revealed a strong potential teacher aide job type. This also held true for the teacher-clerical aides.

The cluster which came the closest to being a supervisor job type was Cluster No. 232. In the same staff support area, the office aides and secretaries appeared in Cluster No. 73 and failed to meet the criteria for a distinct job type.

In the staff area, Cluster No. 512 depicted a fairly distinct job type for administrators. The within value was quite high (54), and there were a large number of members in the group. Yet, only 66 percent of the members in the top five reported job titles had staff level jobs. The remaining clusters in this category were No. 139 and No. 54, both too small to warrant attention in this review.

Table 5

Cluster No. 138

KPath Sequence, 001-187; Number in Cluster, 187;
Within Overlap Value, 41

Duty	% Time Spent
U. Teaching Math	39
R. Teaching	10
S. Teaching Communication Skills	10
P. Preparing for Instruction	7
Q. Using Techniques and Devices for Instruction	6
V. Teaching Science	4

Distribution of Job Titles	%
Teacher	77
Head Teacher	16
Local Director	1
Program Coordinator	1
Counselor	1

Distribution of Specialties	%
GED Preparation	52
Math	22
Basic Education	16
ESL	2
Counseling	2

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	5	12
Level I	22	9
Level II	40	14
Level III	86	23
Job Training	2	10
Citizenship	3	2
Other	3	20

Cluster No. 138 contains 187 members and has a within overlap value of 41. The members teach mathematics. They chose mathematics and GED preparation as their specialty. They are primarily teachers by job title and teach students who concentrate in the upper levels of instruction.

Table 6

Cluster No. 374

KPath Sequence 188-349; Number in Cluster, 162;
Within Overlap Value, 46

Duty	% Time Spent
S. Teaching Communication Skills	26
R. Teaching	13
T. Teaching Communication Skills (Part 2)	13
P. Preparing for Instruction	11
Q. Using Techniques and Devices for Instruction	8
U. Teaching Math	5

Distribution of Job Titles	%
Teacher	83
Head Teacher	12
Dir. of Learning Center	1
Counselor	1

Distribution of Specialties	%
Basic Education	45
ESL	24
GED Preparation	20
None of the above	3
Reading Specialist	2

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	33	21
Level I	46	15
Level II	43	15
Level III	33	20
Job Training	1	21
Citizenship	6	5
Other	6	18

Cluster No. 374 contains 162 members and has a within overlap value of 46. The incumbents teach communication skills, chose basic education and ESL (English as a second language) as their specialty areas. They are teachers by job title and teach students who are distributed across all levels of instruction with a slight emphasis on Level I.

Table 7

Cluster No. 571

KPath Sequence 376-504; Number in Cluster, 129;
Within Overlap Value, 54

Duty	% Time Spent
U. Teaching Math	20
S. Teaching Communication Skills	16
R. Teaching	9
P. Preparing for Instruction	7
V. Teaching Science	7
T. Teaching Communication Skills (Part 2)	6
Q. Using Techniques and Devices for Instruction	5
W. Teaching Social Sciences	5

Distribution of Job Titles	%
Teacher	78
Head Teacher	18
Teacher's Aide	3
Dir. of Learning Center	1
Teacher-Clerical Aide	1

Distribution of Specialties	%
GED Preparation	45
Basic Education	31
ESL	5
Curriculum	3
None of the above	3

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	21	12
Level I	45	7
Level II	55	10
Level III	81	19
Job Training	4	6
Citizenship	5	4
Other	8	11

Cluster No. 571 contains 129 members and has a within overlap value of 54. The members teach primarily mathematics and communication skills. They chose both GED preparation and basic education as their specialty. They are teachers by job title and teach students who concentrate in the upper levels of instruction.

Table 8

Cluster No. 376

KPath Sequence 548-567; Number in Cluster 20;
Within Overlap Value, 54

Duty	% Time Spent
U. Teaching Math	11
S. Teaching Communication Skills	9
R. Teaching	6
N. Providing Guidance Services	6
A. Planning and Organizing	6
D. Directing and Supervising	6
P. Preparing for Instruction	5
B. Administering	4
Q. Using Techniques and Devices for Instruction	4
X. Teaching Life-Coping Skills	4
V. Teaching Science	4
T. Teaching Communication Skills (Part 2)	4
K. Performing Office-Clerical Functions	3
W. Teaching Social Sciences	3

Distribution of Specialties	%
GED Preparation	40
Basic Education	15
Staff Supervision	10
Reading Specialist	5
Counseling	5

Distribution of Job Titles	%
Teacher	35
Head Teacher	30
Local Director	10
Supervisor	10
Counselor	10

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	30	52
Level I	55	14
Level II	65	15
Level III	85	36
Job Training	20	28
Citizenship	7	4
Other	8	11

Cluster No. 376 contains 20 members and has a within overlap value of 54. The members teach mathematics, communication skills, life-coping skills, science, and social science. Job titles are a mix of teaching, staff, and staff support titles.

Table 9

Cluster No. 279

KPath Sequence 568-585; Number in Cluster, 18;
Within Overlap Value, 45

Duty	% Time Spent
S. Teaching Communication Skills	16
R. Teaching	11
P. Preparing for Instruction	10
Q. Using Techniques and Devices for Instruction	7
A. Planning and Organizing	6
N. Providing Guidance Services	5
G. Providing Program Support	4
T. Teaching Communication Skills (Part 2)	4
D. Directing and Supervising	4
V. Teaching Science	4
K. Performing Office-Clerical Functions	3
L. Performing Clerical-Teaching Functions	3

Distribution of Specialties	%
GED Preparation	28
Basic Education	22
ESL	17
Reading Specialist	11
Administrative	6

Distribution of Job Titles	%
Teacher	50
Head Teacher	28
Local Director	11
Program Coordinator	6
None of the above	6

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	28	6
Level I	39	13
Level II	44	18
Level III	33	21
Job Training	0	0
Citizenship	5	7
Other	1	12

Cluster No. 279 contains 18 members and has a within overlap value of 45. The members teach primarily communication skills and perform staff and staff support functions (Duties A, G, D, K). Job titles are of primarily teaching personnel.

Table 10

Cluster No. 229

KPath Sequence 586-601; Number in Cluster, 16;
Within Overlap Value, 45

Duty	% Time Spent
S. Teaching Communication Skills	18
U. Teaching Math	15
R. Teaching	8
P. Preparing for Instruction	8
G. Providing Program Support	6
Q. Using Techniques and Devices for Instruction	6
X. Teaching Life-Coping Skills	5
N. Providing Guidance Services	5
W. Teaching Social Studies	4

Distribution of Specialties	%
Basic Education	75
Curriculum	6
Administrative	6
GED Preparation	6

Distribution of Job Titles	%
Teacher	100

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL		
Level I	75	9
Level II	88	6
Level III	63	9
Job Training	6	1
Citizenship	6	7
Other	11	12

Cluster No. 229 contains 16 members and has a within overlap value of 45. The members teach primarily mathematics and communication skills. Their job title is teacher, and specialty is basic education. They distribute their instruction across the three levels.

Table 11

Cluster No. 93

KPath Sequence 631-652; Number in Cluster, 22;
Within Overlap Value, 36

Duty	% Time Spent
R. Teaching	24
P. Preparing for Instruction	19
Q. Using Techniques and Devices for Instruction	12
U. Teaching Science	9
S. Teaching Communication Skills	6
L. Performing Clerical-Teaching Functions	6
O. Developing Curriculum	5

Distribution of Specialties	%
Science	18
Commercial Skills	18
None of the above	18
GED Preparation	14
Basic Education	14

Distribution of Job Titles	%
Teacher	91
Head Teacher	9

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL		
Level I	18	10
Level II	32	14
Level III	64	29
Job Training	36	16
Citizenship	4	2
Other	0	0

Cluster No. 93 contains 22 members and has a within value of 36. The members teach science and communication skills, with the major emphasis in tasks supportive of teaching; for example, duties R, P, Q and O. The members are teachers and their specialties are almost evenly distributed across five areas, with an instructional emphasis on Level III.

Table 12

Cluster No. 113

KPath Sequence 658-751; Number in Cluster, 94;
Within Overlap Value, 31

Duty	% Time Spent
S. Teaching Communication Skills	29
R. Teaching	16
T. Teaching Communication Skills (Part 2)	15
Q. Using Techniques and Devices for Instruction	11
P. Preparing for Instruction	11

Distribution of Job Titles	%
Teacher	74
Teacher's Aide	13
Head Teacher	12
Teacher-Clerical Aide	1

Distribution of Specialties	%
Basic Education	33
ESL	29
GED Preparation	20
None of the above	4
Commercial Skills	3

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	30	17
Level I	45	10
Level II	33	7
Level III	37	18
Job Training	3	18
Citizenship	2	5
Other	1	30

Cluster No. 113 contains 94 members and has a within overlap value of 31. The members teach communication skills, and are teachers whose specialty areas are distributed across basic education, ESL and GED preparation. They reveal a slight emphasis on Level I of instruction.

Table 13

Cluster No. 68

KPath Sequence 760-780; Number in Cluster, 21;
Within Overlap Value, 34

Duty	% Time Spent
U. Teaching Math	39
L. Teaching	10
Q. Using Techniques and Devices for Instruction	7
S. Teaching Communication Skills	7
P. Preparing for Instruction	5
N. Providing Guidance Services	4
G. Providing Program Support	4

Distribution of Job Titles	%
Teacher	45
Head Teacher	24
Teacher's Aide	14
Local Director	5
Program Coordinator	5

Distribution of Specialties	%
Math	43
GED Preparation	29
Basic Education	19
ESL	5
Community Ed.	5

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	10	13
Level I	29	9
Level II	43	11
Level III	71	17
Job Training	10	90
Citizenship	0	0
Other	0	0

Cluster No. 68 contains 21 members and has a within overlap value of 34. The members teach primarily mathematics and represent a heterogeneous mix of job titles. Specialties are distributed across three types with emphasis on mathematics. A majority of the members instruct at Level III.

Table 14

Cluster No. 142

KPath Sequence 788-801; Number in Cluster, 14;
Within Overlap Value, 40

Duty	% Time Spent
W. Teaching Social Studies	34
S. Teaching Communication Skills	13
R. Teaching	12
Q. Using Techniques and Devices for Instruction	9
P. Preparing for Instruction	7

Distribution of Job Titles	%
Teacher	86
Counselor	7
Head Teacher	7

Distribution of Specialties	%
GED Preparation	43
ESL	14
Citizenship	14
Curriculum	7
Counseling	7

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	14	17
Level I	7	2
Level II	14	17
Level III	64	37
Job Training	0	0
Citizenship	14	14
Other	7	40

Cluster No. 142 contains 14 members and has a within overlap value of 40. The members are teachers by job title and teach primarily social studies. The chosen specialty area is GED preparation with instruction occurring at Level III.

Table 15

Cluster No. 35

KPath Sequence 802-833; Number in Cluster, 32;
Within Overlap Value, 25

Duty	% Time Spent
R. Teaching	11
N. Providing Guidance Services	10
G. Providing Program Support	9
L. Performing Clerical-Teaching Functions	9
P. Preparing for Instruction	7
A. Planning and Organizing	7
B. Administering	5
Q. Using Techniques and Devices for Instruction	5
M. Testing and Diagnosing	5
K. Performing Office-Clerical Operations	5
S. Teaching Communication Skills	4

Distribution of Job Titles	%
Teacher's Aide	56
Teacher	25
Head Teacher	13
Dir. of Learning Cen.	3
Supervisor	3

Distribution of Specialties	%
GED Preparation	31
Basic Education	16
Citizenship	13
None of the above	13
ESL	9

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	25	10
Level I	41	23
Level II	44	13
Level III	59	23
Job Training	13	10
Citizenship	15	17
Other	3	5

Cluster No. 35 contains 32 members and has a within overlap value of 25. The members perform a myriad of teaching, teaching support, and staff support work functions. This group represents a mix of job titles and chosen specialty areas reveal a slight emphasis on GED preparation and Level III instruction.

Table 16

Cluster No. 512

KPath Sequence 857-904; Number in Cluster, 48;
Within Overlap Value, 54

Duty	% Time Spent
A. Planning and Organizing	16
B. Administering	14
D. Directing and Supervising	12
M. Providing Guidance Services	7
J. Evaluating	7
K. Performing Office-Clerical Functions	7
H. Conducting Staff Training	7
C. Coordinating	6

Distribution of Job Titles	%
Co-op Director	35
Local Director	23
None of the above	10
Dir. of Learning Cen.	8
Supervisor	8

Distribution of Specialties	%
Administrative	69
Staff Supervision	19
Counseling	4
Curriculum	2
Educational Media	2

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	19	33
Level I	35	42
Level II	31	49
Level III	33	48
Job Training	10	46
Citizenship	18	48
Other	14	50

Cluster No. 512 contains 48 members and has a within overlap value of 54. The members perform staff and staff support work functions and represent a mix of job titles. Chosen specialty reflects an emphasis in administration.

Table 17

Cluster No. 232

KPath Sequence 928-943; Number in Cluster, 16;
Within Overlap Value, 43

Duty	% Time Spent
D. Directing and Supervising	20
A. Planning and Organizing	18
B. Administering	16
G. Providing Program Support	8
K. Performing Office-Clerical Function	8
C. Coordinating	5

Distribution of Job Titles	%
Supervisor	38
Local Director	25
Counselor	19
Assistant Co-op Dir.	13
Co-op Director	1

Distribution of Specialties	%
Staff Supervision	38
Administrative	25
Counseling	19
ESL	1
Career Ed.	1

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	19	35
Level I	38	24
Level II	38	24
Level III	50	43
Job Training	13	24
Citizenship	6	9
Other	18	54

Cluster No. 232 contains 16 members and has a within overlap value of 43. The members direct and supervise others and perform staff and staff support work functions (duties A, B, G, K and C). The job titles are a mix of staff, staff support, and teaching support personnel. Chosen specialties reflect an emphasis on staff supervision.

Table 18

Cluster No. 139

KPath Sequence 952-965; Number in Cluster, 14;
Within Overlap Value, 40

Duty	% Time Spent
B. Administering	25
A. Planning and Organizing	23
D. Directing and Supervising	10
K. Performing Office-Clerical Function	10
F. Contacting and Utilizing Private and Public Agencies	7

Distribution of Job Titles	%
Co-op Director	50
Local Director	29
Assistant Co-op Dir.	7
Program Coordinator	7
None of the above	7

Distribution of Specialties	%
Administrative	79
ESL	7
Community Ed.	7
None of the above	7

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	29	36
Level I	50	22
Level II	36	31
Level III	50	71
Job Training	14	31
Citizenship	14	12
Other	14	82

Cluster No. 139 contains 14 members and has a within overlap value of 40. The members perform high level staff and staff support work functions. They reflect staff personnel by job title, and specialty area.

Table 19

Cluster No. 67

KPath Sequence 966-980; Number in Cluster, 15;
Within Overlap Value, 33

Duty	% Time Spent
N. Providing Guidance Services	20
D. Directing and Supervising	16
G. Providing Program Support	11
A. Planning and Organizing	10
M. Testing and Diagnosing	8
B. Administering	7
H. Conducting Staff Training	5

Distribution of Job Titles	%
Counselor	67
Supervisor	20
Local Director	7
Dir. of Learning Cen.	7

Distribution of Specialties	%
Counseling	67
Administrative	20
Math	7
Staff Supervision	7

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	27	44
Level I	60	27
Level II	60	38
Level III	67	67
Job Training	13	34
Citizenship	13	8
Other	3	63

Cluster No. 67 contains 15 members and has a within overlap value of 33. The members primarily provide guidance services (counseling) and other staff and staff support functions. The job titles reflect a mix of personnel.

Table 20

Cluster No. 54

KPath Sequence 987-1001; Number in Cluster, 15;
Within Overlap Value, 34

Duty	% Time Spent
A. Planning and Organizing	33
B. Administering	24
J. Evaluating	8
D. Directing and Supervising	7
C. Coordinating	7

Distribution of Job Titles	%
None of the above	73
Co-op Director	7
Local Director	7
Dir. of Learning Center	7
Program Coordinator	7

Distribution of Specialties	%
Administrative	73
ESL	7
Teacher Trainer	7
GED Preparation	7

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	0	0
Level I	0	0
Level II	0	0
Level III	7	60
Job Training	0	0
Citizenship	0	0
Other	0	0

Cluster No. 54 contains 15 members and has a within overlap value of 34. The members perform staff and staff support work functions, and have job titles not listed in the job inventory. Their specialty area is primarily administration.

Table 21

Cluster No. 10

KPath Sequence 1007-1032; Number in Cluster, 26;
Within Overlap Value, 18

Duty	% Time Spent
R. Teaching	36
L. Performing Clerical-Teaching Functions	14
P. Preparing for Instruction	11
Q. Using Techniques and Devices for Instruction	7
A. Planning and Organizing	6

Distribution of Job Titles	%
Teacher's Aide	54
Teacher	46

Distribution of Specialties	%
Basic Education	35
GED Preparation	23
ESL	15
Commercial Skills	12
None of the above	8

Instructional Level

	% Teachers Instructing	Average No. of Students Taught
ESL	19	11
Level I	46	11
Level II	27	11
Level III	35	41
Job Training	4	12
Citizenship	8	10
Other	0	0

Cluster No. 10 contains 26 members and has a within overlap value of 18. The members primarily perform teaching support functions, such as duties R, P, and Q. The job titles reflect a mix of teaching, and teaching support personnel. Chosen specialty reflects an emphasis on basic education and Level I of instruction.

Table 22

Cluster No. 73

KPath Sequence 1040-1073; Number in Cluster, 34
Within Overlap Value, 33

Duty	% Time Spent
K. Performing Office-Clerical Functions	54
L. Performing Clerical-Teaching Functions	13
B. Administering	7

Distribution of Job Titles	%
Secretary	35
Teacher's Aide	29
Teacher-Clerical Aide	12
None of the above	12
Office Aide	9

Distribution of Specialties	%
None of the above	35
Basic Education	12
Administrative	9
Math	6
ESL	3

Instructional Level	% Teachers Instructing	Average No. of Students Taught
ESL	6	8
Level I	24	[illegible]
Level II	15	[illegible]
Level III	18	37
Job Training	0	0
Citizenship	5	10
Other	0	0

Cluster No. 73 contains 34 members and has a within overlap value of 33. The members perform staff support functions and represent a mix of job titles. The specialty area secretary or clerical was not included in the listing of specialty areas in the job inventory and this possibly accounts for 35 percent of the members of the group selecting "None of the above."

of job positions, and/or the required number of members to form a significant job type were not present.

The clusters which met the criteria for significant job types were Clusters Nos. 138, 374 and 571. Cluster No. 512 came very close to meeting the criteria but failed due to the heterogeneity of group membership. These Clusters Nos. 138, 374 and 571 represented significant teacher job types. Each group contained a highly significant number of members, revealed acceptable within overlap values and showed a concentration of personnel whose job title was teacher. These clusters represented three distinct groups of teachers whose work was unique within the field.

Cluster No. 138 contained members who taught mathematics, reported their specialty as mathematics or GED preparation, and primarily taught students at Level III. On the other hand Cluster No. 374 contained members who taught communication skills, reported their specialty as basic education and ESL, and taught students who were fairly evenly distributed across the instructional levels.

Cluster No. 571 contained members who taught mathematics and communication skills. Their specialty was GED preparation and basic education and primarily taught students working at Level III.

The remaining clusters which represented line teachers were either too small or performed work which was too heterogeneous, and/or had members whose job titles were too heterogeneous for qualifying as significant and reliable job types.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study attempted to identify job types in adult basic education in Texas so as to establish a medium by which adult basic educators in Texas could communicate and report the work they perform to administrators at the State level. To accomplish this task, a comprehensive job survey instrument was developed in which each educator could record performed work activities. This effort resulted in the "Job Inventory for Personnel Employed in the Adult Education Career Field" which was completed by approximately 60 percent of the adult basic educators in the State. After the returned job inventories were checked and edited for completeness, the data were input to a job clustering routine. The clustering process reported groups of workers performing unique subsets of tasks in the occupational field. Each group represented a potentially significant job type, and criteria were established to reference the significant job types in the occupational field. Each group or cluster of workers was evaluated to determine if it represented a significant job type. For a cluster (or group) to represent a significant job type, the work performed by the group had to exhibit at least a 40 percent within overlap value. This demonstrated that a uniform subset of tasks was performed by the group and that time spent estimates on performed tasks approached homogeneity. Another criterion required

that 75 percent of the group members represent either staff, staff support, teaching support, or teaching positions. The third criterion required that a significant job type contained at least twenty (20) members to be of sufficient size to warrant attention in this study.

Conclusions

As a result it was found that three groups of workers reported in the clustering process met the requirements for significant job types. Each of the three groups was composed of teachers who performed a unique, distinct and uniform subset of tasks to meet the teaching requirements of local programs. One group taught mathematics and reported their job specialty as mathematics and GED preparation. Another group taught communication skills and reported their job specialty as basic education and ESL. The third group taught mathematics and communication skills and reported GED preparation and basic education as their job specialty. Consequently it was concluded that there appeared to be different job requirements for each of these three groups or job types at this point in time.

The implication exists that if different job and personnel requirements do exist for each of these three job types then three distinct specialty teaching fields should be defined for the adult basic education career field.

In regard to the other clusters or groups reported via the clustering process, no significant job types appeared. The staff support personnel did not form a job type which met the minimum

requirements. The staff support positions include supervisor, office aide and secretary. Most secretaries and office aides grouped together in Cluster No. 73, yet the within overlap value for this group was 33 and approached poor homogeneity of time spent on common tasks. The supervisors experienced a similar fate in Cluster No. 232.

It was also found that line support personnel did not form a significant job type. The line support positions included counselor, teacher's aide and teacher-clerical aide. A weak concentration of counselors appeared in Cluster No. 67 and exibited a low within overlap value on time spent on common tasks. The majority of the counselors were discovered distributed across all the clusters in this study. Some counselors clustered with teachers, others with administrators and supervisors. Teacher's aides and teacher clerical aides did not form a significant job type. Teacher's aides were also distributed across a wide range of clusters in the study. Two weak teacher aide clusters did form (No. 10 and No. 35) but exibited low within overlap values and each cluster contained a mix of job titles.

It may be concluded that the work performed by personnel in each of these positions varied from one worker to another without a uniform subset of tasks common to each position to reference the utilization of workers in that position. The author remembered the comments of a co-op director who expressed the desire to employ a counselor in the local program, but hesitated to do so, because the co-op director was not sure what a counselor did or was supposed

to do in adult basic education. Another co-op director remarked to the author, after completing a job inventory, that he suddenly discovered he was performing some tasks which he felt his secretary should perform.

Such comments as this from field management, coupled with the data in this report imply the need for better understanding between workers and supervisors of the duties and responsibilities in job assignments. This would include a clearer definition of the job requirements for each position in the line support, staff support and staff position categories.

Recommendations

The Adult and Continuing Education Division of the Texas Education Agency is responsible for guiding the development of personnel employed in the adult basic education career field. It is recommended that this development include the preparation of certain types of management information to assist local managers to make more accurate decisions in the job assignment and training of adult educators. This management information relates to the definition of job requirements per position.

> Position descriptions (requirements) developed through job analysis help employees and supervisors to understand the duties and responsibilities in job assignments. They are useful in setting standards for employee performance. A proper understanding of job duties (and tasks) and the skills, knowledge, and abilities needed to perform them is basic to planning an employee development program and developing training plans for individual employees. (28:8)

The CODAP data base established by this study was sufficiently accurate to define job requirements for teachers working in the three specialty areas defined by job types No. 138, No. 374 and No. 571. Consequently, it is recommended that special job design methods be employed to define the job requirements for staff, staff support and line support positions in adult education since the CODAP data base did not reflect sufficiently uniform work assignments for these positions.

It is also recommended that certain types of management information be prepared to guide local managers to make more accurate decisions in screening and selecting personnel for employment in local programs. The definition of personnel requirements per position is necessary. This requires that "minimum qualifications developed through job analysis should describe the general backgrounds of training, experience, knowledge, skills, abilities, and other special requirements that an individual needs for entrance in the job. The qualifications developed should be the minimum needed regardless of the level of the job" (27:7).

The development of a personnel and position requirement program is difficult without a position classification plan which is keyed to an organization's goals and objectives. "The tasks of each job (job requirements for each position) should logically support all of these. In job design or job restructuring it is important to keep the objectives clearly in mind so that tasks can be grouped in the

way that will best support the objectives and promote efficiency and economy" (27:9).

The recommendations outlined in this section reflected the results of a systematic process used to investigate the nature of jobs and incumbent workers in the adult basic education career field. The purpose of the study was to provide a job-related basis for making management decisions affecting the programs in adult basic education. The management decision confronting administrators of adult basic education programs in Texas relates to the degree of organization and direction state administrators wish to provide local program administrators. This organization and direction recommended via this study relates to both state and local administrators "gaining a clear understanding of what makes up a job, what a worker is responsible for doing and what he or she needs in order to do it" (27:1).

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APPENDIX A

A Job Inventory for Personnel Employed in the Adult Education Career Field

A JOB INVENTORY FOR PERSONNEL EMPLOYED IN THE ADULT EDUCATION CAREER FIELD

PREPARED BY THE

OCCUPATIONAL RESEARCH PROGRAM
TEXAS TRANSPORTATION INSTITUTE
TEXAS ENGINEERING EXPERIMENT STATION
TEXAS A&M UNIVERSITY

WITH THE ASSISTANCE OF THE

ADULT AND EXTENSION EDUCATION PROGRAM
COLLEGE OF EDUCATION
TEXAS A&M UNIVERSITY

TAMU

Your assistance in completing this inventory is VERY IMPORTANT. Your answers will be used to:

1. Develop staff training material.
2. Define job specialities within the career field.

To qualify for this survey:

1. You must be employed in adult education either part-time or full-time.
2. You must have been working in your present job assignment for at least four weeks.

This booklet is in two sections. You must complete both sections in order.

Section I - Personnel and Background Information

Section II- Task Information

A Job Inventory is not an exam or an evaluation instrument. It is a method by which an adult educator working in the field can communicate the nature of his work to staff development planners.

Go to the next page and answer the personnel and background information questions.

PRINT

Name_____

Home Address_____

City_____

County_____

Phone_____

County_____
and
City_____
in which you teach adults. C-1

DO NOT WRITE IN THIS SPACE

CASE NO.	1-4	
CO-OP NO.	5-6	
COUNTY NO.	7-9	
CITY POP. CODE	10-13	
CITY	14-21	
ECONOMIC INDEX	22-23	
SMSA NO.	24-25	

Write the number in the blank to the right which corresponds to your sex.
Female - 0
Male - 1 [ ] 26

Write your age in the blanks to the right. [ ][ ] 27-28

There is a number for each job title identified below. Write the number of the job title which most accurately describes your ADULT EDUCATION job title in the blanks to the right.

Co-op Director	01	Head Teacher	09
Asst. Co-op Director	02	Teacher	10
Local Director	03	Teacher's Aide	11
Dir. of Learning Center	04	Office Aide	12
Program Coordinator	05	Home-bound Teacher	13
Supervisor	06	Teacher-Clerical Aide	14
Counselor	07	Secretary	15
Counselor's Aide	08	None of the above	16

[ ][ ] 29-30

If none of the job titles on the last page describe your title in ADULT EDUCATION, print your title in the space to the right. 31-41

If you work in adult education part-time, write the number of the general job title you hold on your OTHER JOB in the blanks to the right.

Administrator in Higher Education .01	Teacher's Aide in High School . . .10
Administrator in Public School . .02	Teacher's Aide in Jr. High . . .11
Supervisor in Public School . . .03	Teacher's Aide in Elem. School . .12
Counselor in Public School 04	Vocational Instructor 13
Counselor in Higher Education . .05	Retired Person 14
Teacher in Higher Education . . .06	Hold no other job 15
Teacher in High School 07	
Teacher in Junior High School . .08	
Teacher in Elementary School . . .09	None of the above 16

42-43

If none of the above job titles describe your title on your other job, print your other job title in the space to the right. 44-54

Write the number of subordinates (staff personnel) who report directly to you for supervision on your other job in the blanks to the right. 55-57

Write the total months you have worked for your other employer in the blanks to the right. 58-60

Write the total months you have worked in the adult education field in the blanks to the right. 61-63

Write the total months you have worked in your present position in adult education in the blanks to the right. 64-66

Write the number of months a year you work in adult education in the blanks to the right. 67-69

If you are paid on an hourly scale, write the hourly rate in the blanks to the right. 70-72

Are you a non-paid volunteer? Write the number in the Blank. 73

Yes = 1
No = 0

Write the number that corresponds to your ethnic association in the blank to the right. C-2

Black-American . .1
Mexican-American .2
Other 3

5

The following is a listing of speciality areas in Adult Education. Write the number of the speciality area that applies to you in the blank to the right.

Reading Specialist	.01	Recruiting	.09	Citizenship	.17
ESL	.02	Administrative	.10	Science	18
Consumer Ed.	.03	Community Ed.	.11	Commercial Skills	.19
Family Life Ed.	.04	Teacher Trainer	.12	Basic Education	.20
Health Ed.	.05	Educational Media	.13	Staff Supervision	.21
Career Ed.	.06	Culture Awareness	.14	None of the above	.22
Curriculum	.07	GED Preparation	.15	If none, describe	
Counseling	.08	Math	.16	_____	

6-7

Do you hold a teaching certificate for the elementary grades?

Yes = 1
No = 0

8

Listed below are some secondary teaching fields.

Biology	.01	Drama	.12	Art	.23
Chemistry	.02	Agriculture	.13	Industrial Arts	.24
Physics	.03	Economics	.14	Homemaking-Gainful	.25
Science-Composite	.04	Geography	.15	Data Processing	.26
Earth Science	.05	Government	.16	Electronics	.27
Mathematics	.06	History	.17	Business	.28
Library	.07	Psychology	.18	Bus. Administration	.29
Communicative Arts	.08	Social Studies	.19	Secretarial Science	.30
English	.09	Sociology	.20	Health & P. E.	.31
Journalism	.10	Home Economics	.21	Health	.32
Speech	.11	Spanish	.22	Music	.33
				Other	.34

If you hold a teaching certificate in any of the above fields, write the number of the field which you consider to be your first choice in teaching in secondary schools in the blanks to the right.

9-10

If you are certified in a second field, write the number of the second field in the blank to the right.

11-12

If you do not hold a secondary teaching certificate, write zeros (00) in the above blanks.

If you do not hold a secondary teaching certificate, yet have a bachelor's degree with a major in one of the above fields, write the number of the field in the space to the right.

13-14

Indicate the number of college credit hours you have in developmental reading courses by writing the number in the blanks to the right.

15-16

Indicate the number of college credit hours you have in adult education courses by writing the number in the blank to the right.

17-18

If you hold either of the following degrees in adult education write the appropriate number in the blank to the right.

Master's = 0
Ph. D. = 1

[ ] 19

Write the number of hours of in-service training you participated in during the preceding year. [ ][ ] 20-21

Refer to the response choice table below and write the number corresponding to the educational level you attained just prior to entering the adult education field. Write the number in the blank to the right. [ ][ ] 22-23

Use the same table and write the number corresponding to the educational level you have presently attained in the blank to the right. [ ][ ] 24-25

High school freshman	09	College senior	16
High school sophomore . . .	10	Bachelor's degree	17
High school junior	11	Working toward Master's degree . .	18
High school diploma or GED .	12	Master's degree	19
College freshman	13	Working toward Doctoral degree . .	20
College sophomore	14	Doctoral degree	21
College junior	15		

Do you plan to remain in adult education? Write the number corresponding to your answer in the box to the right.

Yes 1
Uncertain, probably yes . 2
Uncertain, probably no . 3
No 4

[ ] 26

Write the approximate number of students you presently teach or work with in the blanks to the right.

ESL	[ ][ ][ ]	27-29
Level 1 (Grades 1-4)	[ ][ ][ ]	30-32
Level 2 (Grades 5-8)	[ ][ ][ ]	33-35
Level 3 (Grades 9-12 & GED) . . .	[ ][ ][ ]	36-38
Job Training	[ ][ ][ ]	39-41
Citizenship	[ ][ ][ ]	42-44

Other general adult education courses in such areas as driver education, high school credit, income tax, first aid, etc. . . [ ][ ][ ] 45-47

Write a one (1) in the box beside the types of program you work in or supervise.

Learning Center		48
Vocational Center		49
Evening Program		50
High School Credit		51
GED		52
Adult Continuing Education		53
Work Incentive (WIN)		54
Comprehensive Employment Training Act (CETA) was MDTA.		55
None of the above		56

Describe_____

Write the number of hours you work each day in the blanks beside the days of the week.

	8am to 5pm	5pm to Closing	
Monday			57-58
Tuesday			59-60
Wednesday			61-62
Thursday			63-64
Friday			65-66
Saturday			67-68
Sunday			69-70

Indicate the approximate number of miles you travel to meet your adult education class. (Round trip) ___ 71-73

C-3

Indicate where your adult education class or classes meet by writing a one (1) in the appropriate blank.

Elementary school	5
Junior High school	6
High school	7
Vocational school	8
College	9
Non-Public school building in a residential zone	10
Non-Public school building in a business zone	11

How many times a year do you organize or assist in organizing social activities such as open houses, parties and graduation activities? Write the approximate number of times a year in the blanks to the right. [ ][ ] 12-13

The following listing describes various reasons students withdraw from a program prior to completion or attainment of personal goals.

Employment 01	Lack of transportation . . . 06
Enter training 02	Baby sitting problem 07
Pursue remedial study . . 03	Lack of interest 08
Moved away 04	Lack of time 09
Illness 05	Unknown reason 10

Write the number of the reason you feel most students leave a program early in the blank to the right. [ ][ ] 14-15

Listed below are topics for in-service training. Place a one (1) in the blank to the right of those topics in which you would like assistance. Place a zero (0) in the blank of those topics in which you are not interested in receiving training at the present.

Teaching reading and/or writing	[ ] 16
Teaching ESL	[ ] 17
Teaching math	[ ] 18
Teaching science	[ ] 19
Teaching social studies	[ ] 20
Teaching life coping skills	[ ] 21
Teaching consumer education	[ ] 22
Teaching career education	[ ] 23
Teaching vocational skills	[ ] 24
Administering/managing programs	[ ] 25
Program planning and evaluation	[ ] 26
Public relations and community contact	[ ] 27
Planning and preparing for instruction	[ ] 28
Assessing needs and interests of students . . .	[ ] 29
Understanding and relating to the adult	[ ] 30
Selecting materials for teaching adults	[ ] 31
Developing teacher made materials	[ ] 32
Guiding and counseling students	[ ] 33
Methods and techniques of teaching adults . . .	[ ] 34
Individualizing instruction	[ ] 35
Utilizing community resources in teaching . . .	[ ] 36
Motivating and holding students	[ ] 37
Evaluating student progress	[ ] 38
Directing and supervising staff personnel . . .	[ ] 39
Planning lessons and developing curriculum . .	[ ] 40
Using audio-visual aids and equipment	[ ] 41
GED preparation	[ ] 42
Surveying community needs	[ ] 43
Recruiting students	[ ] 44
Conducting staff training	[ ] 45
Performing office-clerical functions	[ ] 46

Listed below are courses in adult education. Read the description of each course and write a one (1) in the blank to the right if you are interested in studying that course. Write a zero if you are not.

Adult Learning: An in-depth study of the research and experimentation in adult learning. Emphasis on changes in adult life as they affect the teaching-learning process 47

Methods of Adult Education: The theory and practice of methods, technique and devices used in adult education. 48

Adult Literacy Education: A review of the pertinent literacy programs in the U.S. and abroad. Relevancy to social and vocational skills is determined and related to the socio-psychological factors in education. 49

Contemporary Issues in Adult Education: Analysis of some of the most pressing contemporary issues facing adult educators. Emphasis on analyzing issues and seeking approaches to their resolution 50

Principles and practices of Bilingual Education: A review of the bilingual programs in the U.S. and other countries. Analysis of the teaching methods employed, especially the visual-oral aural approaches. 51

Program Development in Adult Education: Students will develop a rationale and acquire conceptual tools by which to analyze the programming process in most adult education organizations. Emphasis on concepts of planning, implementation, and evaluation 52

Community Services in Higher Education: Procedures for organizing and developing a community services program in a college setting. Emphasis on organizing, financing, publicizing, staffing and evaluation 53

Community Development Education: Preparation in the area of community development with special reference to the role of education. Particular attention given to social and economic aspects. Case studies of national and international studies will be analyzed 54

Teaching the Undereducated Adult: An analysis of the role of the teacher in understanding and working with the undereducated adult. 55

Teaching the Undereducated Adult Communication Skills: Procedures useful in the teaching of adults reading, writing, speaking and listening skills 56

Administration of Adult Basic Education Programs: An analysis of skills, procedures, and techniques essential or useful to the administrator of programs for the undereducated adult. 57

Your responses to the following items will remain confidential.

I find my job:

Write the number you choose in the blank to the right.

Extremely dull 1
Very dull 2
Fairly dull 3
So-so 4
Fairly interesting . . . 5
Very interesting 6
Extremely interesting . 7

☐ 58

My job utilizes my natural talents:

Write the number you choose in the blank to the right.

Not at all 1
Very little 2
Fairly well 3
Quite well 4
Very well 5
Excellently 6
Perfectly 7

☐ 59

My job utilizes my previous training and experiences outside of Adult Education:

Write the number you choose in the blank to the right.

Not at all 1
Very little 2
Fairly well 3
Quite well 4
Very well 5
Excellently 6
Perfectly 7

☐ 60

The in-service training I have received in adult education has helped me improve my job performance:

Write the number you choose in the blank to the right.

Not at all 1
Very little 2
Fairly well 3
Quite well 4
Very well 5
Excellently 6
Perfectly 7

☐ 61

STEP #1

INSTRUCTIONS FOR CHECKING (✓) THE TASKS YOU PERFORM

This section of the Job Inventory describes the tasks performed by adult educators. First, you will read each task and determine if you perform the task in your present position. If you perform a task, place a check (✓) in the box to the right in column one (1). After you have gone through the entire listing and checked the tasks you perform, you will then do Step #2 and apply a time spent estimate to each task you checked. DO NOT APPLY TIME SPENT ESTIMATES TO THE TASKS AS YOU CHECK THEM.

Turn to the first page of the task section (page no.11) and begin reading and checking those tasks you perform in your present position.

After you have completed Step #1, read the instructions for completing Step #2.

NOTE: Check only the tasks you perform in your present position.

STEP #2

INSTRUCTIONS FOR APPLYING TIME SPENT ESTIMATES

This step requires rating every task you checked on an arbitrary scale of nine. This is a scale of time spent, the total time you spend on each task you rate, compared with the time you spend on each of the other tasks you do. You are comparing ONLY the tasks you perform with each other.

Time rate ONLY the tasks you perform in your present job. Leave others blank.

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

EXAMPLE: Suppose you checked Tasks 1 and 3 below.

1. Evaluate charts or graphs	✓	9
2. Direct staff meetings		
3. Fill supply requisitions	✓	3

If you decided you spend a VERY MUCH ABOVE AVERAGE amount of time at Task 1 (compared to the other tasks you do), then you would write a 9 in the box to the right.

If you did not check Task 2, you would leave the box to the right of the task blank.

If you decided you spend a BELOW AVERAGE amount of time on Task 3, you would write a 3 in the box to the right.

. . . . . .

Start on the first page of the task section and read each task you checked. Then:

a. Decide the time spent estimate you think the task should have.

b. Write the time spent estimate in the blank under column #2.

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
	DUTY A: PLANNING AND ORGANIZING			
				C-4
1	Attend area advisory committee meetings			5
2	Attend co-op coordinators committee meetings			6
3	Attend staff meetings			7
4	Conduct staff studies			8
5	Consult with sponsoring agencies			9
6	Contact co-op district representative to coordinate program development			10
7	Contact school administrators and discuss objectives for adult education programs			11
8	Direct group discussions and conferences			12
9	Establish course entry prerequisites			13
10	Establish priorities to meet selected needs for adult education programs			14
11	Establish program facilities requirements			15
12	Establish training aids requirements			16
13	Identify projected program needs requiring supplementary assistance			17
14	Locate resources to support adult education programs			18
15	Plan agenda for area advisory committee meetings			19
16	Plan agenda for conferences			20
17	Plan agenda for co-op coordinators' meetings			21
18	Plan curriculum development programs			22
19	Plan equipment maintenance requirements			23
20	Plan graduation activities			24
21	Plan methods for conducting surveys			25

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
22	Plan methods for evaluating program operations			26
23	Plan modification of facilities to accomodate instructional systems			27
24	Plan parties and social affairs			28
25	Plan recruitment programs			29
26	Plan reporting and operating procedures			30
27	Plan staff development programs			31
28	Plan training programs with cooperating employers			32
29	Prepare budget modifications			33
30	Prepare operational guidelines for distribution to staff personnel			34
31	Review an area's previous experience with federal and state funded programs			35
32	Review proposed instructional programs			36
33	Review policy and procedures guidelines			37
34	Write guidelines for directing the use of external service agencies			38
35	Write job descriptions for staff personnel			39
36	Write personnel manuals and guidelines			40
37	Write proposals			41
	DUTY B: ADMINISTERING			
1	Administer program funding			42
2	Advise staff on appropriate advertising and public relations methods			43
3	Advise staff on establishing special programs			44
4	Advise staff on registering and enrolling students			45

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
5	Calculate program expenditures			46
6	Check condition of equipment			47
7	Determine the administrative role of institutions participating in program			48
8	Determine the operational role of institutions participating in programs			49
9	Determine requirements for office equipment, space or supplies			50
10	Determine staff requirements			51
11	Develop detailed budgets for requested funds			52
12	Distribute materials and supplies to teachers			53
13	Draft correspondence			54
14	Escort visitors and describe program operations			55
15	Fill out student stipend allowance forms			56
16	Inspect facilities to prevent loss of equipment and materials through theft and burglary			57
17	Inspect facilities for classroom use			58
18	Interpret state and federal guidelines			59
19	Interview prospective staff members			60
20	Recruit prospective staff members			61
21	Register and enroll students into the program			62
22	Review equipment or training aids requirements			63
23	Review purchase contracts for equipment or materials			64
24	Review the functions of social service agencies			65
25	Update a record file on community resources			66
26	Write contracts for building use			67
27	Write co-op contracts with state education agency			68
28	Write narrative reports on activities in the co-op area			69

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
DUTY C: COORDINATING				
1 Arrange transportation services for students				70
2 Coordinate activities for developing and distributing program advertisements				71
3 Coordinate assignment of students with instructional staff				72
4 Coordinate co-sponsorship of classes with other agencies				73
5 Coordinate development of training materials				C-5 5
6 Coordinate gathering of experimental study data with agencies requesting data				6
7 Coordinate in-service training activities with teacher trainers				7
8 Coordinate reproduction and printing activities				8
9 Coordinate staff recruitment of students				9
10 Coordinate student council work				10
11 Coordinate the acquisition and development of in-service training materials				11
12 Coordinate the distribution of materials and equipment to staff members				12
13 Schedule field trips				13
14 Schedule in-service training programs				14
15 Schedule student use of learning center equipment				15
16 Schedule visitors to observe program operation				16
DUTY D: DIRECTING AND SUPERVISING				
1 Advise instructors in using training aids and instructional materials				17
2 Advise instructional staff on developing and using teaching methods				18

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
3	Assign staff to work positions			19
4	Assign students to instructors			20
5	Counsel staff on their professional development goals			21
6	Direct on-the-job training of staff personnel			22
7	Establish policies and regulations for using facilities			23
8	Locate substitutes for absent staff			24
9	Maintain staff daily attendance records			25
10	Plan staff work loads			26
11	Review classroom experiences with teachers			27
12	Review lesson plans prepared by teaching staff			28
13	Review purchase contracts for educational equipment			29
14	Review student progress reports			30
15	Schedule duty hours and workloads of staff personnel			31
16	Supervise counseling of students by staff personnel			32
17	Supervise in-service training of staff personnel			33
18	Supervise purchase of equipment and supplies			34
19	Supervise recruitment of staff			35
20	Supervise recruitment of students			36
21	Supervise testing of students by staff personnel			37
22	Supervise work performed by non-teaching personnel			38
23	Visit classrooms to observe instructional techniques used by teachers			39
24	Visit classrooms to observe rapport between students and teachers			40
25	Write performance and/or efficiency reports on staff personnel			41
26	Write periodic reports on program operations			42

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATI IF DONE	
DUTY E: COLLECTING AND ANALYZING DATA FOR PROGRAM PLANNING				
1	Classify adults in community according to level of needed training			43
2	Compile raw data for statistical analysis			44
3	Compile resource guides to describe available resources			45
4	Conduct door-to-door surveys			46
5	Conduct follow-up studies on activities of ex-students			47
6	Conduct job surveys to identify employment opportunities			48
7	Conduct mail-out surveys			49
8	Conduct manpower needs surveys to establish training requirements			50
9	Conduct surveys by telephone			51
10	Conduct surveys to determine number of adults eligible for adult education			52
11	Develop survey forms			53
12	Identify educational requirements for specific occupations			54
13	Locate vocational information			55
14	Prepare data summaries for special reports			56
15	Prepare statistical reports on program, staff and attendance activities			57
16	Record data on current jobs			58
17	Research cultural characteristics of ethnic groups			59
18	Review employment commission reports to identify job opportunities			60
19	Review demographic data to identify characteristics of a population			61
20	Summarize demographic data for reporting purposes			62

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
DUTY F: CONTACTING AND UTILIZING PRIVATE AND PUBLIC AGENCIES				
1	Address civic organizations			63
2	Arrange for appearances of resource persons in the program			64
3	Attend curriculum advisory committee meetings			65
4	Attend local advisory committee meetings			66
5	Attend meetings of civic organizations			67
6	Attend school board meetings			68
7	Contact ethnic group leaders to identify program needs			69
8	Develop a cooperative training agreement with employers			70
9	Develop job training standards with in-plant supervisors			71
10	Identify the power structure in a community			72
11	Interpret programs and courses to community leaders			73
12	Locate funding and support for program development			C-65
13	Locate jobs for students			6
14	Match students' skills and abilities with job requirements			7
DUTY G: PROVIDING PROGRAM SUPPORT				
1	Acquire names of prospective students from local agencies, i.e., high school, business, industries, social agencies, etc.			8
2	Follow-up on absentees from program by mail			9
3	Follow-up on absentees from program by phone contact			10
4	Follow-up on absentees from program by personal contact			11

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
5 Follow-up on dropouts to determine reasons for withdrawal				12
6 Identify specific students to visit with outside of class hours				13
7 Locate facilities for program use				14
8 Prepare letters, posters or leaflets advertising programs				15
9 Present recruitment programs in public shopping areas, meeting halls, etc.				16
10 Recruit students by canvasing a neighborhood				17
11 Recruit students through informal contacts				18
12 Schedule specific times to visit with students outside of class hours				19
13 Transport students to classrooms				20
14 Write announcements and advertising for local media				21
15 Write newsletters				22
DUTY H: CONDUCTING STAFF TRAINING				
1 Conduct orientation meetings for new teachers				23
2 Recruit teacher trainers for staff training				24
3 Review professional journals				25
4 Review training records of staff to identify training deficiencies				26
5 Survey staff to identify in-service training needs				27
6 Train staff in utilizing program evaluation techniques				28
7 Train teachers in directing students				29
8 Train teachers in identifying appropriate instructional content				30
9 Train teachers in using diagnostic tests				31
10 Train teachers in using programmed instructional materials				32

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
11	Train teachers in using reinforcement methods			33
12	Train teachers in using self-directed kits, workbooks, etc.			34
13	Train teachers in utilizing classroom management techniques			35
14	Train teachers to determine socio-economic cultural traits of students			36
15	Train teachers to match instructional media with the level of the learner			37
16	Train teachers to operate learning machines			38
17	Train teachers to utilize record keeping procedures			39
	DUTY J: EVALUATING			
1	Evaluate district programs in a co-op area			40
2	Evaluate individuals for promotion or reclassification			41
3	Evaluate in-service training plans and programs			42
4	Evaluate instructional materials and equipment for suitability			43
5	Evaluate lesson plans of instructional staff			44
6	Evaluate maintenance of equipment			45
7	Evaluate methods for measuring student achievement			46
8	Evaluate proposals			47
9	Evaluate staff development programs			48
10	Evaluate student self-evaluation procedures			49
11	Evaluate teaching effectiveness of instructors			50
12	Evaluate work experience for educational equivalency			51
13	Interview field personnel to assess quality of educational programs			52
14	Review and evaluate qualifications of prospective staff members			53

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
15	Review methods for evaluating programs			54
16	Review students' personnel folders to assess students' previous performance and potential			55
17	Review test results and ratings to evaluate student progress			56

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
DUTY K: PERFORMING OFFICE-CLERICAL FUNCTIONS				
1 Answer office phone				57
2 Arrange bulletin boards				58
3 Assemble educational materials for distribution to staff personnel				59
4 Calculate staff payroll and enter amounts into encumbrance journal				60
5 Check invoices of supplies, equipment and material				61
6 Collect fees for courses and materials				62
7 Distribute mail				63
8 File correspondence and materials				64
9 Inventory property, equipment and supplies				65
10 Operate office machines				66
11 Perform routine preventative maintenance on tools and equipment				67
12 Prepare agency's composite attendance record				68
13 Prepare annual reimbursement claim				69
14 Prepare quarterly financial report				70
15 Prepare teachers' annual program report				71
16 Prepare teachers' travel reimbursement forms				72
17 Record work performed on work activity sheets				73
18 Requisition equipment, materials, supplies, etc.				C-7 5
19 Review application forms for accuracy and completeness				6
20 Schedule appointments				7
21 Type letters and correspondance				8

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
22	Type purchase orders and enter into encumbrance journal			9
23	Write payroll checks			10
	DUTY L: PERFORMING CLERICAL-TEACHING FUNCTIONS			
1	Add data to student progress report files			11
2	Arrange classroom facilities			12
3	Clean classroom and other program facilities			13
4	Collect fees for consumable supplies			14
5	Compute grades			15
6	Distribute and collect instructional materials			16
7	Prepare periodic student progress reports			17
8	Prepare student record folders			18
9	Record library book check-outs			19
10	Record student attendance data			20
11	Record test scores and grades			21
12	Record work performed on a daily log			22
13	Review files to identify non-attending students			23
14	Supervise children of parents attending programs			24
15	Set up audio-visual equipment			25
16	Type or write students' attendance certificates			26
17	Update daily student lesson-study progress charts			27
18	Write periodic reports of class activities			28

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
	DUTY M: TESTING AND DIAGNOSING			
1	Administer informal tests for student placement purposes			29
2	Administer interest inventories			30
3	Administer personality or attitudinal tests			31
4	Administer standardized aptitude and achievement tests			32
5	Administer standardized tests for student placement purposes			33
6	Administer tests in the native language of a student			34
7	Diagnose learning problems			35
8	Interpret results of attitudinal or personality tests			36
9	Interpret results of informal tests for student placement purposes			37
10	Interpret results of interest inventories			38
11	Interpret results of standardized aptitude and achievement tests			39
12	Interpret results of standardized tests for student placement purposes			40
13	Record test results			41
14	Schedule GED tests			42
15	Score tests			43
	DUTY N: PROVIDING GUIDANCE SERVICES			
1	Accompany students during job interviews			44
2	Arrange for counseling of students			45
3	Conduct initial interviews of prospective students			46

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
4	Conduct group guidance sessions			47
5	Consult with staff to identify individual learning differences			48
6	Counsel adults in clarifying life goals			49
7	Counsel adults in modifying specific habits or attitudes			50
8	Counsel adults to alleviate conflicting pressures in their life			51
9	Counsel staff on career and educational opportunities			52
10	Counsel staff on selecting suitable teaching materials			53
11	Counsel staff on suitability of alternative testing programs			54
12	Counsel staff on understanding the adult student			55
13	Counsel students on taking college entrance exams			56
14	Counsel students on taking GED exams			57
15	Counsel students regarding attendance or punctuality			58
16	Counsel students regarding economic hardship problems			59
17	Counsel students regarding educational problems			60
18	Counsel students regarding family and personal problems			61
19	Counsel students regarding vocational problems			62
20	Counsel veterans on available benefits			63
21	Develop rapport with students			64
22	Discuss adjustment problems of students with other staff members			65
23	Follow-up on students referred to other social service agencies			66
24	Identify patterns indicative of poor mental health			67
25	Identify personal-social needs of students for job placement			68
26	Identify personal-social needs of students which affect attendance			69
27	Record student counseling observations			70

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
28 Refer students for medical or dental aid				71
29 Refer students to public health services				72
30 Refer students to rehabilitation services				73
31 Refer students to welfare services				C-8 5
32 Report student progress to referral agencies				6
33 Write student counseling reports				7
DUTY O: DEVELOPING CURRICULUM				
1 Conduct trial runs on instructional materials				8
2 Identify what participants see as appropriate learning activities				9
3 Interview subject matter specialists to develop instructional materials				10
4 Prepare teacher handbooks				11
5 Reproduce instructional materials through photographic and/or mechanical processes				12
6 Research instructional resource materials				13
7 Review curriculum guides, course outlines, lesson plans and presentation methods				14
8 Review technical accuracy of instructional materials with subject matter experts				15
9 Revise curriculum guides				16
10 Revise student study guides, workbooks or course outlines				17
11 Select books and materials for library				18
12 Write curriculum guides, course outlines and lesson plans				19
13 Write study guides, workbooks or handouts				20

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
	DUTY P: PREPARING FOR INSTRUCTION			
1	Arrange and display equipment and materials for students' use			21
2	Assign materials to students			22
3	Construct informal achievement tests			23
4	Construct teaching aids (transparencies, flash cards, etc.)			24
5	Define desired level of performance for each student			25
6	Determine individual students' interests, goals and objectives			26
7	Determine skills and knowledges to be taught in a lesson			27
8	Determine skills requiring independent learning			28
9	Determine suitable activities to promote learning			29
10	Discuss results of informal placement tests with students			30
11	Establish amount of time to be spent in a subject to attain a predetermined goal			31
12	Formulate behavioral objectives			32
13	Identify common needs for grouping students			33
14	Identify reading level of materials by using reading formula			34
15	Interview students to gain background information (work experience, education, interests, etc.)			35
16	Locate areas of interest for field trips			36
17	Locate instructional aids for use in teaching (newspaper ads, product warranties, travel schedules, etc.)			37
18	Plan methods of presentation			38
19	Prepare individual student study programs			39
20	Prepare lesson plans for individual students			40

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
21 Review students' prescription plans				41
22 Select instructional content for a lesson				42
Duty O USING TECHNIQUES AND DEVICES FOR INSTRUCTION				
1 Present lessons by conducting field trips				43
2 Present lessons by means of drill and repetition				44
3 Present lessons through demonstration methods				45
4 Present lessons through lecture methods				46
5 Present lessons through lecture-discussion methods				47
6 Present lessons through role-play situations				48
7 Present lessons through use of programmed instruction				49
8 Present lessons through use of workbooks				50
9 Present lessons using charts, maps, etc.				51
10 Present lessons using film projectors				52
11 Present lessons using flash cards				53
12 Present lessons using gaming techniques				54
13 Present lessons using overhead transparencies				55
14 Present lessons using tape recorders or record players				56
15 Present lessons using television and/or video-tape recorders				57
16 Present lessons using group discussion techniques				58
17 Present lessons utilizing case studies				59
18 Present lessons utilizing large group methods such as symposiums, panels, forums, etc.				60
19 Present lessons with the assistance of resource persons				61

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
	DUTY R: TEACHING			
1	Acquaint students with the objectives of adult education programs			62
2	Conduct class activities involving games, riddles, etc. as break from routine studies			63
3	Conduct study sessions with individual students			64
4	Conduct study sessions with small groups of students			65
5	Direct students toward personal involvement in activities that will lead to independent performance			66
6	Distribute materials to students requesting home study activities			67
7	Explain to students the necessity of using a developmental program to reach readiness level			68
8	Group students according to ability			69
9	Guide students to group around common interests and study needs			70
10	Identify and discuss student experiences which relate to the lesson			71
11	Introduce students to other class members			72
12	Introduce students to staff			73
13	Observe students to identify those who are losing interest in a lesson			C-9 5
14	Orient students to classroom or learning center procedures			6
15	Orient students to the operation of learning machines and equipment			7
16	Participate in informal student discussions			8
17	Participate in team teaching			9
18	Present lessons on the procedures to use in taking tests			10
19	Review and correct students' work			11
20	Review students' schedules for achieving learning goals			12

TIME SPENT SCALE 1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE		
JOB INVENTORY (DUTY-TASK LIST)			RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB						1 ✓ IF DONE	2 TIME RATE IF DONE
21 Review subject matter and provide examples of items covered on tests										13
22 Utilize students to assist others in learning a lesson										14
23 Verify students' personal objectives and goals with amount of study required to attain those goals										15
DUTY S: TEACHING COMMUNICATION SKILLS										
1 Present lessons on agreement of verb and subject										16
2 Present lessons on anticipating and interpreting main ideas										17
3 Present lessons on appropriateness of formal and informal (street) english										18
4 Present lessons on building communication skills through group discussions										19
5 Present lessons on building listening skills										20
6 Present lessons on building spelling skills										21
7 Present lessons on building vocabulary skills										22
8 Present lessons on building word recognition skills by using contextual clues and structural analysis										23
9 Present lessons on correct usage of adjectives, adverbs, pronouns, etc.										24
10 Present lessons on correct eye movement										25
11 Present lessons on correct us of punctuation										26
12 Present lessons on developing sight vocabulary										27
13 Present lessons on drawing conclusions and making inferences										28
14 Present lessons on effective speaking										29
15 Present lessons on finding context clues										30
16 Present lessons on finding main ideas in paragraphs										31
17 Present lessons on giving directions										32
18 Present lessons on identifying synonyms, antonyms and homonyms										33

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
19	Present lessons on identifying types of paragraphs			34
20	Present lessons on idioms			35
21	Present lessons on interpreting written thought units such as phrase, sentence, paragraph and composition			36
22	Present lessons on identifying and writing different types of sentences			37
23	Present lessons on organizing ideas			38
24	Present lessons on personal pronouns, possessive pronouns and contractions			39
25	Present lessons on principal parts of verbs			40
26	Present lessons on reading for meaning			41
27	Present lessons on reading for pleasure			42
28	Present lessons on reading to locate answers			43
29	Present lessons on reading to arrange ideas			44
30	Present lessons on the structure and parts of a sentence			45
31	Present lessons on understanding and following written directions			46
32	Present lessons on using critical reading skills, such as distinguishing fact vs. opinion			47
33	Present lessons on blending consonants, short vowels, long vowels, etc.			48
34	Present lessons on writing legibility			49
35	Present lessons on writing paragraphs			50
36	Present lessons on writing business letters			51
37	Present lessons on writing personal letters			52
	DUTY T: TEACHING COMMUNICATION SKILLS (PART II)			
1	Develop functional language word lists			53
2	Present lessons by having students dictate stories to you			54

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
3	Present lessons on the names of numbers and number systems using word-number-symbol association			55
4	Present lessons on the phonetic sound of the letters of the English alphabet			56
5	Present lessons on using sound-object-word symbol association			57
6	Present oral lessons dealing with sound contrasts of words (i.e., thing, sing; lacy, lazy; cheap, sheep; etc.)			58
7	Present oral lessons introducing English words with the equivalent word in the learner's language			59
8	Present oral lessons on existing word order using the dialogue			60
9	Present oral lessons on identifying the denominations of money using coin-currency, word, sound association			61
10	Present oral lessons on new vocabulary words, using sound-picture-object association			62
11	Present oral lessons on the lexical and contextual meaning of words taught			63
12	Present oral lessons on the structure or patterns of the language			64
13	Present oral lessons requiring fixed responses			65
14	Present oral lessons requiring free choice responses			66
15	Present oral lessons requiring free expressions			67
16	Present oral lessons using repetition, drill of words or word patterns previously taught to reinforce learning			68
17	Present oral lessons using substitution drills with word changes in one or more places in a sentence			69
18	Present oral lessons, sequentially, introducing single English vocabularly words using the say-repeat method			70
19	Present oral lessons using the backward build-up method			71
20	Present oral lessons using the question-answer method			72
21	Present oral lessons using word pattern-practice drill			73
22	Present oral lessons using word pattern-practice-substitution drill			C-10 5
	DUTY U: TEACHING MATH			
1	Present lessons on methods of adding, subtracting, multiplying nad dividing of decimals			6

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
2	Present lessons on methods of adding, subtracting, multiplying and dividing of fractions			7
3	Present lessons on methods of adding, subtracting, multiplying and dividing of signed numbers			8
4	Present lessons on methods of adding, subtracting, multiplying and dividing of whole numbers			9
5	Present lessons on basic types of angles including vertical, complementary, and supplementary angles			10
6	Present lessons on canceling out factors			11
7	Present lessons on changing a mixed number to a fraction			12
8	Present lessons on changing an improper fraction to a mixed number			13
9	Present lessons on changing decimals to fractions			14
10	Present lessons on changing decimals to percents			15
11	Present lessons on changing fractions to decimals			16
12	Present lessons on changing percents to decimals			17
13	Present lessons on changing percents to fractions			18
14	Present lessons on comparing decimals			19
15	Present lessons on computing averages			20
16	Present lessons on evaluation of algebraic expressions and formulas			21
17	Present lessons on even and odd numbers			22
18	Present lessons on factoring expressions having a common monomial			23
19	Present lessons on factoring the difference of two squares			24
20	Present lessons on factoring trinomials			25
21	Present lessons on finding least common denominator			26
22	Present lessons on finding a number when the percent of the number is given			27
23	Present lessons on finding square roots by approximation			28
24	Present lessons on finding the perimeters and areas of plane figures			29
25	Present lessons on finding the percent of a quantity			30

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
26	Present lessons on finding volumes of solid figures			31
27	Present lessons on finding what percent one quantity is of another			32
28	Present lessons on fundamental trignometric functions, sine, cosine, and tangent			33
29	Present lessons on graphing algebraic equations on rectangular coordinates			34
30	Present lessons on translating from verbal problems to algebraic equations			35
31	Present lessons on identifying three dimentional solid figures			36
32	Present lessons on identifying geometric shapes			37
33	Present lessons on interpreting graphs and charts			38
34	Present lessons on inverse operations			39
35	Present lessons on methods of adding, subtracting, multiplying and dividing monomials and polynomials			40
36	Present lessons on number series, arithmetic series and geometric series			41
37	Present lessons on parallel lines cut by a transversal and the relationship of pairs of angles formed			42
38	Present lessons on powers of numbers			43
39	Present lessons on prime numbers and prime factors			44
40	Present lessons on ratios and proportions			45
41	Present lessons on reducing fractions to lowest terms			46
42	Present lessons on reading decimals			47
43	Present lessons on rounding off numbers			48
44	Present lessons on sets equivalence, union and intersection			49
45	Present lessons on similar triangles			50
46	Present lessons on solving for equations			51
47	Present lessons on squares and square roots			52
48	Present lessons on standard and metric system of weights and measurements			53
49	Present lessons on the meaning and value of percentages			54

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
50	Present lessons on the Pythagorean Theorem			55
51	Present lessons on types of triangles			56
	DUTY V: TEACHING SCIENCE			
1	Present lessons by having students conduct scientific experiments			57
2	Present lessons on air and air currents			58
3	Present lessons on effects of drugs, alcohol, tobacco, etc.on the human body			59
4	Present lessons on electro-magnetic waves (radio-T.V.)			60
5	Present lessons on safety			61
6	Present lessons on chemical elements and compounds			62
7	Present lessons on heredity and hereditary traits			63
8	Present lessons on insecticides--benefits and dangers			64
9	Present lessons on magnetism and electricity			65
10	Present lessons on microbes and the environment in which they exist			66
11	Present lessons on photosynthesis			67
12	Present lessons on pollination as related to plant growth			68
13	Present lessons on pollution of air, water, soil, etc.			69
14	Present lessons on proteins, carbohydrates and fats			70
15	Present lessons on relationship of work, recreation and rest to good health			71
16	Present lessons on sex education			72
17	Present lessons on simple and complex machines (i.e., lever, fulcurm)			73
18	Present lessons on simple and complex organisms			C-11 5
19	Present lessons on the chemicals that make up the human body			6

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
20	Present lessons on the earth and planets in the solar system			7
21	Present lessons on the human emotions and mental health			8
22	Present lessons on the human reproductive system			9
23	Present lessons on the law of gravity			10
24	Present lessons on the steps used in scientific inquiry			11
25	Present lessons on the structure of atoms and molecules			12
26	Present lessons on the structure of cells			13
27	Present lessons on the structure of the earth			14
28	Present lessons on the systems of the body (i.e. muscular, skeletal, nervous)			15
29	Present lessons on the water cycle			16
30	Present lessons on the weather			17
	DUTY W: TEACHING SOCIAL STUDIES			
1	Present lessons on the discovery and colonization of the New World			18
2	Present lessons on the federal constitution			19
3	Present lessons on the history of the United States			20
4	Present lessons on World History			21
5	Present lessons on the U. S. Bill of Rights			22
6	Present lessons on the representative form of government, political parties, and the elective process			23
7	Present lessons on the geography of the U.S.			24
8	Present lessons on the free enterprise system			25
9	Present lessons on America as a world power			26
10	Present lessons on the cultural heritage of the U.S.			27

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
11	Present lessons on the role of labor unions and management in production of goods and services			28
12	Present lessons on current issues and problems			29
13	Present lessons on Texas history			30
14	Present lessons on state and local government			31
15	Present lessons on the three branches of government			32
16	Present lessons on the economy of the U.S. and the Federal Reserve System			33
	DUTY X: TEACHING LIFE-COPING SKILLS			
1	Present lessons on the meaning of words and symbols associated with occupational knowledge			34
2	Present lessons on applying for jobs			35
3	Present lessons on the standards of behavior for various types of employment			36
4	Present lessons on words and symbols encountered in all phases of consumer economics			37
5	Present lessons on preparing to shop and shopping with economy			38
6	Present lessons on planning money management			39
7	Present lessons on associating words and symbols encountered in all phases of health with their meaning			40
8	Present lessons on meeting personal and family health needs			41
9	Present lessons on recognizing, preventing and treating common health problems			42
10	Present lessons on sources of family planning information			43
11	Present lessons on planning meals according to needs and resources			44
12	Present lessons on aiding and comforting other individuals in time of stress and change			45
13	Present lessons on associating names of various community and state agencies with their meaning and services			46
14	Present lessons on using telephone directory and telephone			47
15	Present lessons on identifying and using sources of information			48

TIME SPENT SCALE

1	2	3	4	5	6	7	8	9
VERY MUCH BELOW AVERAGE	MUCH BELOW AVERAGE	BELOW AVERAGE	SLIGHTLY BELOW AVERAGE	ABOUT AVERAGE	SLIGHTLY ABOVE AVERAGE	ABOVE AVERAGE	MUCH ABOVE AVERAGE	VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE	
16	Present lessons on associating words and symbols encountered in government and law with their meaning			49
17	Present lessons on registering to vote and voting procedures			50
18	Present lessons on identifying government agencies responsible for servicing individual and community needs			51
19	Present lessons on the financing of government services			52
20	Present lessons on the restrictions and protections afforded by laws normally encountered in daily life			53
21	Present lessons on associating words, signs and symbols used in public and private transportation			54
22	Present lessons on identifying and locating sources of information for specific transportation needs			55
23	Present lessons on locating points of departure or interest by use of maps and diagrams			56
24	Present lessons on health and nutrition			57
25	Present lessons on parent education and family life			58
26	Present lessons on U.S. citizenship exams			59
27	Present lessons on critical behavior required for an employment interview			60
	Return to page 10 and read the instructions for time rating the tasks you checked.			
	At the end of Step #2, check to make sure you have applied time spent estimates to all tasks you have checked. If you missed any, the job inventory will be returned to you.			
	If you perform any tasks not listed anywhere in the booklet, write them on the next page.			

TIME SPENT SCALE

1 VERY MUCH BELOW AVERAGE	2 MUCH BELOW AVERAGE	3 BELOW AVERAGE	4 SLIGHTLY BELOW AVERAGE	5 ABOUT AVERAGE	6 SLIGHTLY ABOVE AVERAGE	7 ABOVE AVERAGE	8 MUCH ABOVE AVERAGE	9 VERY MUCH ABOVE AVERAGE

JOB INVENTORY (DUTY-TASK LIST)	RESPOND ONLY TO THE TASKS PERFORMED IN YOUR PRESENT JOB	1 ✓ IF DONE	2 TIME RATE IF DONE

APPENDIX B

Description of CODAP Data Summaries

(The three volumes described in this section are available for review at the Texas Education Agency, Austin, Texas, Adult and Extention Education Program, Texas A&M University, and the Occupational Research Program, Industrial Engineering Department, Texas A&M University.)

APPENDIX B

DESCRIPTION OF CODAP DATA SUMMARIES

Volume I contains two job descriptions for each of sixteen clusters or groups of workers. The first description describes the work performed by the group at the duty level and represents a concise summary of the longer task level job description. The task level job description reports the work performed in a more detailed manner and follows each duty level description. These job descriptions contain the following types of information. The group identification number is located in the upper left hand corner of each page. These three digit numbers are also conveniently displayed on tabs for quick reference. The two header information paragraphs below the group identification number may be ignored. These paragraphs begin with the words "Job Description Adult Data . . ." and "Duty or Task Description . . . cases . . ." On the extreme left hand side of a job description is the letter designating the duty field and the number of the task in the duty field. These are arrayed under the heading "D-TSK". Reading to the right is the duty or task title as recorded in the job inventory. The first data vector column to the right of the task title represents the percent of members within the group who perform each duty or task. The next data vector column reports "the average percent time spent by members performing" the duty or task. The third data vector column reports the "average percent time spent by all members" and the forth data vector column represents the "cumulative sum of average percent time spent by all members" (data in vector column three). The duties and tasks

in each job description are listed in descending order of magnitude of data in data vector column three. Column five provides a cumulative count of tasks reported in the job description.

The main report discussed most of the groups covered in this appendix. A few were not and this report contains the additional job descriptions. One group with the I.D. number 001 is a job description of the total work force. In addition, Group No. 408 is a sub-group of No. 374; Group 273 contains Group No. 512; Group No. 117 is a sub-group of No. 113: and Group No. 255 contains Group No. 571, 376, and 279.

The main report reviewed the criteria used to identify significant job types. The three job types which were identified as significant are as follows:

Group No. 138 taught mathematics and reported their job specialty as mathematics and GED preparation.

Group No. 374 taught communication skills and reported their job specialty as basic education and ESL. Members of this group taught students who were evenly distributed across the instructional levels.

Group No. 571 taught mathematics and communication skills and reported their job specialty was GED preparation and basic education, yet taught students who studied primarily at level three.

Each of these groups of workers represent unique and distinct functional organizations of work activities and reveal the teaching

specialties in adult basic education. The author recommends that the reviewer of the job descriptions closely examine the tasks by duty fields and pay particular attention to the percent performing data vector column. The reader should also refer to the tasks in the job inventory and locate those tasks, within a particular duty field, which are being performed by fewer workers.

The reminaing clusters or groups of workers reported in the job description volume are weak or insignificant job types. These groups represent workers who perform few tasks in common, or the membership by job title is diverse and/or number of members within a group is less than twenty.

These groups are as follows:

Group No. 273 is a program administrator job type and contains group No. 512 in the main report.

Group No. 232 is a staff supervisor job type with less than twenty members and contains a diverse mix of job titles.

Group No. 067 is a weak counselor job type.

Group No. 376 is a weak head teacher job type.

Group No. 136 is a composite group containing all of the three teaching specialty groups.

Group No. 117 is a sub-group of Group No. 113, and contains teachers who taught communication skills.

Group No. 408 is a sub-group of Group No. 374.

Group No. 035 is one of several weak teacher aide job types.

Group No. 010 is a weak teacher aide job type.

Group No. 073 is a weak secretary job type.

Group No. 255 is a large composite group containing Group Numbers 571, 273, and 376.

Group No. 139 is a weak administrator job type.

At the tab labeled "Group Summary A" is the report relating the percent of workers performing each task per job type.

At the tab labeled "Group Summary B" six experience levels are arrayed across the top of the page. These levels are: 1 - 6 months, 7 - 12 months, 13 - 24 months, 25 - 36 months, 37 - 60 months, and 61 - 600 months. Under each experience level is reported the percent of teachers (working within that experience level) performing tasks in each duty field.

Volume II contains group difference descriptions produced by a special program which calculated and reported the difference between two job descriptions in terms of percent of members performing each task. The difference values are presented in descending order from largest negative to largest positive difference or vice versa. On the first page entitled "Job Difference between Administrator - Staff Supervisor" examine the first task which is A-32 entitled "Review Proposed Instructional Programs." The first column of numbers to the right under #GRP0273 represents the percent of administrators who perform this task. The next column of numbers represent the percent of staff supervisors who perform the same task. The difference (77.87) is reported in the third column. The next two columns report time spent values and their difference. The remaining summaries report group difference descriptions between selected groups.

The groups are:

273 - 232
272 - 67
232 - 67
232 - 376
376 - 136
138 - 751
374 - 117
374 - 408
117 - 408
67 - 35
273 - 35
136 - 35
136 - 10
10 - 73

Volume III contains a summary of background and computed variables found in the first section of the Job Inventory. A special program computed and reported frequency distributions within specified intervals, made total frequency counts, and calculated means and standard deviations on selected background and computed variables for the job types identified in Volume I.

Sixteen job types are reported in Volume III. Seven job types are covered in the first half of the volume (Teaching Areas) and seven in the second half (Administrative and Staff Support). Pages are numbered consecutively within each of the two sections.

On Page 1 under the heading, "Variable Data on: C007 = ...," is the data revealing the mean number of tasks performed by incumbent workers in each job type. For example, under the heading GRP03763 (a "3" was redundantly assigned to the end of each group number) is a distribution of the number of workers performing tasks within specified intervals designated on the left. At the bottom of the column is a "20" which identified the number of workers counted above and in this job type. Workers in this job performed on an average 321 tasks with a standard deviation of 87. The mean for each job type can be read across the bottom row.

The next item in Volume III is "Variable Data on: V002" which reports the distribution of workers by job type from various co-op regions. Further down the summary, "Variable Data on: V004" reports the population mean of the cities by job type where adult educators work. "V006" reports the mean of the economic indexes by job type of the region where adult educators work, and "V008" reports the

mean age of workers per job type. The remaining variables and reported data in Volume III are in the same sequence as the background section of the job inventory.